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INDIAN MEDICO LEGAL & ETHICS ASSOCIATION

Aims & Objectives

- To promote, support and conduct research related to medico-legal, ethical and quality care issues in the field of medicine.
- To help, guide, co-ordinate, co-operate and provide expert opinion to the government agencies, NGO, any semi-government, voluntary, government agencies, legal bodies / institutions and judiciary in deciding settled or unsettled laws or application of laws / rules related to medico-legal or ethical issues.
- To train the medical professionals in doctor-patient relationship, communication skills, record maintenance and prevention of litigations.
- To promote and support the community members and individuals in amicable settlements of the disputes related to patient care, management and treatment.
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- To identify, establish, accreditation and promote organizations, hospitals, institutes, colleges and associations working on the related and allied issues.
- To promote goodwill, better care, quality care, professional conduct, ethical values.
- To establish and maintain educational institutes, hospitals, medical colleges, libraries, research centers, laboratories etc. for the promotion of its objects and to provide scholarships, fellowships, grants, endowments etc. in these fields.
- To print and publish the bulletins, books, official journal / newsletters or periodicals etc on related and allied subjects.
- To co-operate, co-ordinate, affiliate and work with other bodies, agencies or organizations to achieve the objects.

Junk Food and Legal Issues

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Childhood is most important period of growth and development of an individual. Healthy nutritional practices are of paramount importance at this time. Changing food habits and replacement of nutritious food with unhealthy junk food which is high in sugar, salt and fat content is leading to problems like childhood obesity etc.[1] Junk food consumption is increasing steeply, both in urban and rural areas. The ease of availability, taste, low cost, peer pressure and aggressive marketing strategies is making it popular with children and adolescents.[2] As television and internet is reaching the remotest areas, so is junk food. Children watch television where fast food advertisements are rampant, leading to change in their food behaviour.[3] As a consequence, junk food is replacing traditional food items in daily life both because of convenience and taste. According to the National Institute of Nutrition (NIN) dietary guidelines, "the shift from traditional to 'modern' foods, changing cooking practices, increased intake of processed and ready-to-eat foods and intensive marketing of junk foods and 'health' beverages have affected people's perception of foods as well as their dietary behaviour". Irrational preference for energy-dense foods and those with high sugar and salt content pose a serious health risk to the people, especially children. Moreover, children are unaware of the effect of junk food on their growth and development and are unable to make educated choices.[4] These practices have led to increasing number of overweight and obese people in the community.[5] The consequent burden of chronic non-communicable diseases necessitates systematic nutrition and educational interventions on a massive scale.[6]

The salt, sugar and fat content of the food items needs to be regulated. Junk food is not standardized in Indian regulations. This comes under category of foods which should declare their composition and comply under general regulation of Food Safety and Standards Act of India (FSSAI). (Table 1) There need to be regulations on marketing and availability of junk food, especially where it can influence food choices of children. The aim of this review is to understand the implications of junk food and associated legal issues.

Table 1: Food Guidelines for Schools in India (FSS ACT,2006)

Identify foods high in fat, salt & sugar
Restrict /limit availability of the following food items in schools & 50 meters nearby; chips, fried food, carbonated/non carbonated sugar beverages, ready to eat noodles, pizzas, burgers, potato fries & confectionery items
List food items needing regulation such as samosa, chana bhatura etc
Implement a Canteen policy based on Colour coding ; Green Category (Healthy) foods-should constitute 80% of available foods Red Category(Unhealthy) foods- shouldn't be sold or served in schools

What is junk food?

There is a broad concept of 'Unsafe Foods' whose nature, substance or quality is affected so as to render it injurious to health. These also include those food items which are misbranded or promoted with false and misleading claims. Junk foods lie in the category of these unsafe foods. As per the NIN, *"Unhealthy (junk) foods are those containing little or no proteins, vitamins or minerals but are rich in salt, sugar, fats and are high in energy (calories)."* Globally, foods with similar attributes in different regions

are also termed as foods 'High in Fat, Salt and Sugar', (HFSS), 'Foods of Minimal Nutritional Value'(FMNV) or 'Energy-Dense Low-Nutrient Density Foods' or 'Energy Dense and Nutrient Poor Foods for Children'(EDLNF or EDNPFC). Fast foods are rapidly prepared & quickly served in a packaged form. The terms junk & fast foods are interchangeably used frequently.[1, 7]

Examples of junk foods are fast foods (pizza, burger, noodles, pasta, chips etc), soft drink (coke, pepsi etc) and snacks (biscuits, chocolates, doughnuts etc.)

Processed foods

These are defined as "foods that are subjected to technological modifications either for preservation or for converting into ready to-use/eat foods, eliminating laborious household procedures".

Why should junk food be regulated ?

As per WHO, there is a strong association between consumption of this food and non-communicable diseases (NCDs) like diabetes, hypertension and heart diseases and cancer.[6] Junk food consumption is considered as a leading cause of childhood obesity which is one of the most critical public health problems especially among children and adolescents today.[8,9] A recent report has suggested that the mothers who consumed junk food during pregnancy are more likely to have children who are more prone to obesity and other NCDs like diabetes and hypertension. It is well established that salt, sugar and fat are the food items which need to be regulated in our daily diet. As junk foods are rich in these, such foods need to be regulated as well.

Despite, harmful effects of junk food, one can argue that people can make their own choices and there is no real need for legal regulation. This case scenario is same as what was presented by the tobacco lobby against legal regulation against cigarettes.[10] Junk food marketing is primarily aimed at the population which is not equipped to make choices, the most important of them are children.

Children are not the best judges of their food choices. They have a limited understanding about the impact of food on their health and can easily be influenced especially through various modes of media. They also lack the necessary discretion and judgement about what foods should be consumed or avoided. Broadly, they are not aware about the concept of balanced diet and what kind of food is to be consumed or avoided. They also lack the required know-how on diseases and their relation to diet. Despite this, they are being aggressively targeted by food marketing. They are one of the biggest viewer groups of television, and food advertisements constitute a major share of overall TV, radio and print advertisements across the world. Big food and drink companies are not only bombarding children with junk food advertising and sophisticated marketing techniques but also creating brand loyalty in children that they will carry into adulthood.[11,12] It's not only TV advertising, that is influencing children, they can be reached in a multitude of ways through new and constantly evolving media platforms. Only 2% of a food company's budget goes into research & development against 50% into advertising. Also, today's children have more autonomy & they play a vital role in buying of any good or service in the market. "Pester Power" refers to children's ability to nag their parents into purchasing items they may not otherwise buy.[13] Though we can educate children but it can be done to a limited extent only, hence it is important to regulate marketing of junk food.

All the junk food companies target schools to promote their product which should be discouraged. School is a place to learn the right values and constructive behavior for a lifetime. Since food consumption at school is a significant part of the overall daily diet, schools should not allow canteens to promote food habits, that not only negatively impact the health of children but

also inculcate life time habit of junk food consumption.

Finally, the benefits of balanced, fresh and traditional food cannot be replaced. Junk food is not standardized in Indian regulations. Such products are only expected to declare their nutritive value, contents and comply under the general guidelines of "Food Safety and Standards Act."[14]

What is being done at international level ?

In 2004 Global Strategy of WHO on diet, physical activity and health stated that "food advertising messages that encourage unhealthy dietary practices should be discouraged and the government should develop a multi-sectoral approach to address any such issues." [15, 16]

Later in 2012-13, the WHO provided a framework for implementing the set of recommendations on the marketing of food and non-alcoholic beverages to children, and also acknowledged that marketing of food and beverage products that are high in fat, sugar and salt to children is recognised as an important cause of child obesity and diet-related NCDs.[17,18]

Several countries have adopted one or more of the following three approaches for regulating the exposure and availability of junk food to children.

- Ban availability in schools.
- Regulate advertisement and promotion.
- Impose taxes.
- High-profile campaigns, where celebrities shun endorsement of this food & push for healthier options.

Ban on junk food in schools

Several countries across the world have begun to regulate availability of junk food over the past few years. Specific legislations have been adopted that are aimed to promote health of school children, and provide healthy & nutritious food. Measures adopted include:

- Formulating nutrition standards and criteria to help decide on foods to be allowed or banned;
- Keeping school canteens, kiosks and vending machines under purview of the ban;
- Replacement with healthier traditional foods at most times.

Some of the legislations are:[19-22]

- Canada: 'School Food and Beverage Policy, 2010' under the 'Healthy Food for School Act, 2008'
- Peru: 'Promoting Healthy Food for Children Act', 2013
- UAE: 'Guide of Health and Nutritional Practices of School Canteen', 2011
- United States: 'Smart Snacks in Schools', nutrition standards for all foods sold in schools under the 'Healthy, Hunger-Free Kids Act, 2010'
- England: 'Nutritional Standards and Requirements for School Food' (England) Regulations, 2007

Restriction on junk food advertisements and marketing [3,23]

Numerous studies & scientific evidence across the world reflecting the extent of impact of food and non-alcoholic beverages on children through advertisements & promotion, suggest that advertisements directly influence the majority of the eating and drinking preferences of children. They are exposed to the pervasive marketing of unhealthy food via advertisements on television, internet, social media, viral marketing and endorsement through cartoon characters and celebrities. About 40 per cent of the children are only aware of the selling and persuasive intent of advertisements at the age of 11-12 years. Taste and healthiness are reported

as the most important factors in snack food choices, but when faced with the actual food choice, children aged 5-12 years, predominantly choose unhealthy foods. Children prefer more branded and non-branded fat & carbohydrate-rich items after viewing food commercials in comparison to other commercials. Children aged 4-6 years prefer foods having popular cartoon characters on the packaging. Overweight children especially aged 4-8 years are more likely to recognise fast food restaurant logos than other food logos.

Taxing junk food [24]

Several countries have imposed or proposed taxes on various junk foods in order to limit the overall consumption of foods that are high in fats, sugar including carbonated beverages, energy drinks, sugar sweetened/flavoured beverages, packaged sweets, ice creams, jams, salty snacks, chocolates and food flavourings etc. This measure makes 'price' a limiting factor in consumption and adds to 'revenues' that would contribute to public health expenditure. Popularly, these taxes have been named as 'chips tax','fat tax', 'soda tax' etc.

Regulation of Marketing:

The dilemma: Self regulation or mandatory government regulations[25]

There are contrasting views among industry experts on whether there should be self or government regulations in controlling unhealthy food practices.

Self Regulation

Large food companies participate in a variety of voluntary initiatives at global, regional and country levels like "The European Union (EU) Pledge" which was launched in 2007 by 11 leading food & beverage companies with an objective to change the way of advertising food and beverage over different forms of media (television, print and internet) targeted at children.[26] But these self regulatory initiatives have their own limitations and non performance has raised doubts over its effectiveness. It was later observed that, in countries like Germany, Australia, Canada & Spain, children's exposure to food commercials has largely remained unaffected. In the US, adolescent exposure to food advertisements increased by over 20% during 2004-11.[27] This may be because the targeted age and the nutrition criteria are not defined. Companies have their own selection criteria about foods that are not to be advertised, moreover, the self-made rules are narrow and limited. Furthermore, these regulations are either erratically monitored or weakly enforced.

Mandatory Control

This is a strategy in which certain regulations are legally enforced upon food companies and they are bound to follow them. Considering the non-performance and bias issues of the companies, only laws could make advertising company stick to the desired norms.

Labelling in Junk food [28]

The WHO says that, "Providing accurate, standardised and comprehensive information on the content of food items is conducive to consumers making healthy choices." Various labelling practices such as 'Nutrition facts' labelling, 'Front-of-pack' labelling and 'Menu' labelling are considered as global best practices.[15]

'Nutrition Facts' labelling [29, 30]

'Nutrition Facts' labelling is practiced in countries like the US and is becoming popular in other parts of the world. It is aimed at enabling informed dietary decisions by the consumers. These labels must provide complete information on the nutrient content, depicting serving size and nutrient information per serving as percentage of the daily value.

The presentation should be standardised to limit confusion, promote easy understanding and should be based on recognised scientific criteria.

'Front-of-pack' labelling

It is a figurative representation of key information on the front of the pack (FoP) and is a useful labelling tool that complements the labelling at the back of pack. Several FoP labelling initiatives are being practised across the world like:

The 'Traffic Light' system practiced in the UK

It has a mandatory nutrition declaration at back of pack. Colour coding – Green, Amber and Red is an additional expression in line with EU FIC (food information to consumers).

The 'Keyhole' signs in countries such as Denmark, Sweden & Norway

It is a positive label that suggests fulfilling a certain criteria on dietary fibre, salt, sugar, fat and saturated fats. It indicates a healthier option to consumers.

'Menu' labelling

It is proposed by the US Food and Drug Administration (USFDA). It refers to listing of calorie content and nutrients such as sodium, added sugar, trans fat, saturated fat & protein etc. displayed on menus, menu boards (including drive through menu boards), food wrappers, vending machines & containers of fast food outlets and restaurant chains.

Nutrient profiling models to categorise food

As per the WHO, "Nutrient profiling is a science of classifying or ranking foods according to their nutritional composition for reasons relating to preventing disease and promoting health." It helps to assess the quality of food with reference to levels of nutrients such as fats, sugar, salt, vitamins, minerals and dietary fibre. Several countries have developed their own models.

Nutrient profile model (FSA-Ofcom model) of the UK (Table 2)

It has been developed to introduce broadcasting restrictions on advertisements of junk foods and encourage promotion of healthier alternatives. The model uses a simple scoring system wherein points are allocated on the basis of nutrient content of 100 g of a food or drink. Points are awarded in 2 categories; 'A' nutrients (energy, saturated fat, total sugar and sodium), and 'C' nutrients (fruit, vegetables and nut content, fibre and protein). Final Nutrient Profile Score = Score for 'A' nutrients - Score for 'C' nutrients. Foods scoring 4 or more points & drinks scoring 1 or more points, are classified as 'less healthy' and are subject to controls on the advertising of foods to children.

Table 2: Scores depicting unhealthy junk foods (As laid by CSE, based on Nutrient Profiling Model, UK)

Food Item	Cut-off score	Score
Lays Potato Chips	4	14
Haldiram Aloo Bhujia	4	18
Maggi Noodles	4	19
McAloo Tikki Burger	4	7
Cadbury Dairy Milk Chocolate	4	24
Coca Cola	1	2
Pepsi	1	2
Slice	1	3
Maaza	1	2

Legal Status in India

In India, there exist no specific guidelines or laws that deal with regulation of advertising and marketing of junk food. The FSSAI has laid down science based standards for manufacture, storage, supply and distribution of food. It has various sections which include restriction on advertisements (section 24) and penalty for misleading advertisements (section 53) among many others.[14] There are few other acts such as Food Adulteration Act 1994 and Cable

Television Networks Act, 1995.[31, 32] NGO Uday Foundation filed a PIL in Delhi High Court in the year 2010, which sought an immediate ban on junk food in schools & in their vicinity. In Sept. 2013, the High Court ordered the government to set up a committee to frame guidelines for junk food in India.[33] This Committee included top officials from Center for Science and Environment (CSE), NIN, All India Food Processors Association, National Restaurant Association of India and medical professionals. On 16th March 2015, Delhi High court ordered strict implementation of new guidelines by government body (Table 1). While approving the guidelines, the court gave Centre and FSSAI, 3 months' time to convert these into law and start enforcing them.[33]

What is needed?

India needs a suitable national policy for regulation of unsafe foods/junk food with a system to monitor and evaluate it periodically. Such a policy should be able to avoid potential conflict of interests. It should strengthen international cooperation to decrease the impact of cross-border marketing. There should be a global strategy to decrease the impact of foods high in saturated fats, trans-fatty acids, and free sugars and salt.

What regulations can be enforced by court of law?

In India, as with the rest of the world, the issues are similar, so the remedy should be on same lines. The laws should be stringent and there should be penalties for non-compliance with the laws. India has a diverse heritage of various foods and the calorie and nutrient content especially that of fats depends upon the cooking methods adopted. Most of the Indian fast foods are prepared by deep frying in fats especially saturated and trans-fats. In our country the regulations should not be limited to the fast food giants but the Indian street food should be regulated as well. (Table 3) This can be a mammoth task as these foods are not even standardized and need a comprehensive review.

Table 3:

Most common junk foods	Non standardized junk foods
Chips, fried packaged foods and similar packaged food items	Samosa
Carbonated beverages	Chhole bhature
Sugar sweetened non-carbonated beverages	Bread pakora
Instant noodles	Tikki,Chaat
Potato fries, burgers	Pav Bhaji
Confectionery items such as chocolates, candies, gums etc	

There is a big issue with “exaggerated health claims” with food marketing in India. The food regulatory agency has indicted several household brands, including Britannia biscuits, Complan and Horlicks health drinks and Kellogg's breakfast cereals, for misleading claims about some of their food products amounting to 'puffery' which means to "make exaggerated claims" about the product, which cannot be proved.[34][35] Food companies should be punished for pushing unhealthy food if they are unable to substantiate their claims. In this regard several such food companies were taken to task by FSSAI.

A very important agenda in Indian context is availability of junk food in and around schools. Cafeterias at the schools offer sodas, cold drinks, chips, samosa and many other foods which can be classified among junk foods. (Table 3) Often children abandon healthy home-made food in favor of these poor food choices. This should be discouraged and healthy food choices should be promoted. (Table 4) There is lack of stringent laws and regulation pertaining to fast food sale in Indian schools. As per laws, no fast food should be available in the schools and within 500 m radius of schools.

As in UK there should be laws to make nutrition

Table 4:

Suggested Healthy Menu Options
• fruit salad, fruits, paneer / vegetable cutlets, • khandvi, • poha, • uthapam, • upma, • idlis

food labelling mandatory in India. Though studies have shown mixed results of practice of food labelling on calorie intake and food behaviour, but it definitely makes consumer aware of choices they are making. [36,37] Labelling issues were highlighted by Centre for Science (CSE) study, 2012. Many of the food items tested claimed to be free of trans fats, but the study showed otherwise. Some brands did not mention the nutrition information for a serving size. The serving size was not standardised; it varied between brands and also from country to country. There was no mention of the amount the ingredients contributed to the RDA. Non-packaged junk food items such as burgers, fries and pizzas had their nutritional value & content on their respective websites which is of little or no value. The nutritional attributes of these food chains mentioned on websites also varied between different country regions and within the same country also. For non-packaged junk food, there was no provision for sharing nutritional information on menus and menu boards at the outlets.

One of the most important issues is regulation of food advertisements on television, print media and internet etc. that lure children towards unhealthy food habit of consuming junk food. In India, media advertisement and publicity is under the control of Ministry of Information and Broadcasting. Media rules and regulations are set under Indian Cable Television Network act 1994 and Advertising Standard Council of India.[32] There is an urgent need to formulate guidelines for regulation of quality of food products advertised on television. There should be guidelines banning advertisement that promotes unhealthy food behavior on channels frequently viewed by children. The timing of such advertisement should also be regulated so that no such advertisement is displayed at the peak hours, when children viewership is high. [38] There should be agencies to monitor exaggerated claims and unscientific ads should be banned. The companies which violate these laws should be punished with heavy penalties and should be boycotted. Sportsman and celebrities should be taken to task for promotion of unhealthy foods as happened in a recent case of a celebrity who was served a notice for promoting a leading noodle brand.

Is law the only answer?

Laws are made for various issues but most important is awareness among general public and participation of various sections of society to improve food habits among children and society at large. Health care professionals should make people aware of healthy options and reinforce healthy food habits among children. Parents and community should not be impressed by misinformation and fads promoted by advertisements. Parents are instrumental in inculcating healthy food habits for life, they should be aware and motivated to do so. Media should be responsible enough to show only evidence based advertisements and those with exaggerated health claims should be rejected. Government should also take responsibility of making, monitoring and implementing stringent laws. Last but not least international agencies such as WHO and UN should actively work in this field to stop this epidemic of obesity and non-communicable diseases.

Conclusions

Eating junk food has become a part of our culture and life in past few years. Indian food with low nutritious value were always there but now other foods and beverages like pizza, burger, sodas and crisps are also part of routine diet. Children

are lured by attractive marketing strategies and peer pressure. Consumption of diet high in saturated fats, sugar, salt and calories can lead to childhood obesity and cardiovascular complications later. High intake of junk food by children can be controlled by stringent laws against marketing and availability of these foods. Nutritional labeling can improve the quality of these foods and can give consumers an insight into the content of such low nutritional value foods. Overall, we need strong legal guidelines, which should be as aggressive as those for tobacco industry. The government at all levels has an obligation to act, given the harmful effect of junk foods on the health of children.

References

1. Anderson JW, Patterson K. Snack foods: comparing nutrition values of excellent choices and "junk foods". J Am Coll Nutr. 2005 Jun;24(3):155-6.
2. Popkin BM. The nutrition transition and obesity in the developing world. J Nutr. 2001 Mar;131(3):871S-3S.
3. Kelly B, Hattersley L, King L, Flood V. Persuasive food marketing to children: use of cartoons and competitions in Australian commercial television advertisements. Health Promot Int. 2008 Dec;23(4):337-44.
4. Kaur M, A MH. Are we aware of what we are, we are what we eat- An Epidemiological Survey. Int J Clin Pediatr Dent. 2008 Sep;1(1):13-6.
5. Sreevatsava M, Narayan KM, Cunningham SA. Evidence for interventions to prevent and control obesity among children and adolescents: its applicability to India. Indian J Pediatr. 2013 Mar;80 Suppl 1:S115-22.
6. Malik VS, Popkin BM, Bray GA, Despres JP, Hu FB. Sugar-sweetened beverages, obesity, type 2 diabetes mellitus, and cardiovascular disease risk. Circulation. 2010 Mar 23;121(11):1356-64.
7. Gracey M. Junk food or 'junk eating'? Nestle Nutr Workshop Ser Pediatr Program. 2005;56:143-50.
8. Jackson P, Romo MM, Castillo MA, Castillo-Duran C. Junk food consumption and child nutrition. Nutritional anthropological analysis. Rev Med Chil. 2004 Oct;132(10):1235-42.
9. Misra A, Vikram NK, Sharma R, Basit A. High prevalence of obesity and associated risk factors in urban children in India and Pakistan highlights immediate need to initiate primary prevention program for diabetes and coronary heart disease in schools. Diabetes Res Clin Pract. 2006 Jan;71(1):101-2.
10. Chopra M, Darnton-Hill I. Tobacco and obesity epidemics: not so different after all? BMJ 2004 Jun 26;328(7455):1558-60.
11. Harrison K, Marske AL. Nutritional content of foods advertised during the television programs children watch most. Am J Public Health. 2005 Sep;95(9):1568-74.
12. Uribe R, Fuentes-Garcia A. The effects of TV unhealthy food brand placement on children. Its separate and joint effect with advertising. Appetite. 2015 Mar 31;91:165-72.
13. Children 'pester' for advertised junk food. Community Pract. 2015 Mar;88(3):8.
14. The Food Safety and Standards Act, 2006. In: Ministry of law and Justice ND, ed.: Legislative department 2006.
15. Hawkes C. Regulating and litigating in the public interest: regulating food marketing to young people worldwide: trends and policy drivers. Am J Public Health. 2007 Nov;97(11):1962-73.
16. Nishida C, Uauy R, Kumanyika S, Shetty P. The joint WHO/FAO expert consultation on diet, nutrition and the prevention of chronic diseases: process, product and policy implications. Public Health Nutr. 2004 Feb;7(1A):245-50.
17. Waxman A. Prevention of chronic diseases: WHO global strategy on diet, physical activity and health. Food Nutr Bull. 2003 Sep;24(3):281-4.
18. WHO. Guideline: Sugars Intake for Adults and Children. 2015.
19. Campbell N, Duhaney T, Arango M, Ashley LA, Bacon SL, Gelfer M, et al. Healthy food procurement policy: an important intervention to aid the reduction in chronic noncommunicable diseases. Can J Cardiol. 2014 Nov;30(11):1456-9.
20. Fung C, Kuhle S, Lu C, Purcell M, Schwartz M, Storey K, et al. From "best practice" to "next practice": the effectiveness of school-based health promotion in improving healthy eating and physical activity and preventing childhood obesity. Int J Behav Nutr Phys Act. 2012;9:27.
21. Evans CE, Greenwood DC, Thomas JD, Cleghorn CL, Kitchen MS, Cade JE. SMART lunch box intervention to improve the food and nutrient content of children's packed lunches: UK wide cluster randomised controlled trial. J Epidemiol Community Health. 2010 Nov;64(11):970-6.
22. Lloyd-Williams F, Bromley H, Orton L, Hawkes C, Taylor-Robinson D, O'Flaherty M, et al. Smorgasbord or symphony? Assessing public health nutrition policies across 30 European countries using a novel framework. BMC Public Health. 2014;14:1195.
23. Harper TA, Mooney G. Prevention before profits: a levy on food and alcohol advertising. Med J Aust. 2010 Apr 5;192(7):400-2.
24. Franck C, Grandi SM, Eisenberg MJ. Taxing junk food to counter obesity. Am J Public Health. 2013 Nov;103(11):1949-53.

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A study of pattern of Cranio-Cerebral injuries in cases of Railway Traffic Accidents brought to the Post Mortem Centre

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Abstract

Post mortem examination has important value in case of railway accidents when the head injury are incorporated very importantly. There were so many statistical data present which had defined the head injury but no statistical data is observed regarding the traumatic lesion of the brain in cases of Railway traffic accident deaths. This significant oversight can lead to difficulty in finding out the exact cause of death in cases of railway traffic accidents. It can help to improve the hospital emergency centre with concern to head injured victims in case of Railway traffic Accidents. In this study period was from the 1st June 2012 to 31st October 2014. During this period, a total number of 867 autopsies were carried out in the department of Forensic Medicine, out of which, 74 cases of railway accident were selected for evaluation in the present study. The victims were divided into 7 groups on the basis of traumatic Lesions of the brain. First group had only contusions (C), second group had only lacerations (L), third group had traumatic brain swelling and herniation(H), fourth had contusion + laceration (CL), fifth missing, sixth operated (O) and seventh liqueified (L). Observations made were compared with the previous studies.

Key Words

Contusions, Lacerations, Traumatic swelling and herniation and operated.

Introduction

Railways being one of the most comfortable means of transportation have a long history and an unprecedented contribution to the human civilization. The basic design of the Railway consists of a locomotive or a self- propelled motor-unit drawing a train of cars over a track of two parallel rails placed together on a permanent stretch of roadway or railway. The flanged wheels rolling on iron or steel ribs, causes minimal friction thereby allowing a smooth and comfortable journey with the added advantage of being cheap, safe and reliable means of transport for everyone.

With increasing advantage of the railway it has been observed that as the day progresses the railway also causes misadventures: disadvantages in terms of injury with deaths of the passengers. In India, as per the report from the railway year book, in the year of 2011-12, 235 passengers were killed and 358 injured and about Rs.585.89 Lakhs compensation was paid by the Govt. An autopsy surgeon usually encounters isolated cases where death results from some kind of railway track incident. While in most cases, an opinion regarding the nature of death can be provided by a close observation of the injury pattern alone, in some cases, it becomes almost impossible to form an opinion about the nature of death. A correct opinion regarding the cause and nature of death becomes important in view of the increasing number of railway injuries and fatalities, which mount to a high number of compensation cases. The correct opinion helps the Railway to verify the cases liable for compensation and also helps in formulating ways for prevention of the same.

Aims and Objectives

1) To study the causative factors.

2) To study external and internal injuries peculiar to railway fatalities.

3) To study cause and manner of death.

4) To assess and evaluate the difference and pattern of head injury on the basis of previous studies.

Material and Methods

The present study was carried out in the post mortem center of a medical college situated at Central India. It is a prospective study .The post mortem center conducts autopsies on following railway accident victims: 1. Cases brought dead by any of the nearby police station. 2. Cases of Railway accidents admitted to this hospital (Either directly or as a transfer from any other hospital) who succumb to the injuries. The study period extended from the 1st June 2012 to 31st October 2014. During this period, a total number of 867 Autopsies were carried out in the department of Forensic Medicine, out of which, 74 cases of railway accident were selected for evaluation in the present study. Approval of local institutional ethical committee had been taken. Criteria for selection or exclusion of cases:

1. Victims of railway accidents that took place onside the train (Running or stationary), or on the railway track. Or on the railway platform and brought to the postmortem center with history of railway accidents as per the police inquest.

2. Non- train accidents64: Accidents to people on railway premises but not connected with the movement of railway vehicles, were excluded.

3. The natural deaths which occurred in train, railway track, railway platform, railway premises and brought by railway police were not included in the current study.

Collection of data: Information that provided the primary data in each case was collected from different sources. They were as follows:

1. Examination of the inquest report and history from the relative if available.

2. In case of hospitalized victims, records of the treatment were perused.

3. Finding of the autopsy reports.

All data collected from different sources were recorded in specially designed proforma for each case for further collective evaluation.

The information was collected and studied mainly under the following headings.

a) Brief history

b) Causal factors

c) Post mortem examination

d) Cause of death History and causal factors

A compendious picture about the back ground of the victims was elicited after taking history from investigating police and relatives of the victims. This included detailed particulars such as name, age, sex, address, religion, educational status, socio economic status, occupation, marital status. Similarly an idea about the circumstances of the event leading to death was made out by other epidemiological data such as place of incident, nature of incident leading to death, time of occurrence, weather conditions; and survival period, etc. very importantly Evidence of suicide notes along with body also noticed.

Post Mortem examination.

The detailed post mortem examination carried out in each case comprised of an external and an internal examination.

a. External examination included general condition of the body, including external orifices, injuries sustained, etc.

b. Internal examination is carried out systematically by opening the three principal body cavities viz. the chest, abdomen and cranium and dissecting the contents by Letulle's method. The location and the extent of the injury were specially observed to note any pattern if any.

Results

1. Head

A) Pattern of skull vault fracture-

Fractures of the skull vault were observed in 36 (48.64%) cases. Distribution as per the types of fracture is summarized in the following table.

Table: 1

No.	Combination of vault fracture	No of cases	Percentage
1.	Fissured	17	22.97%
2.	Depressed	0	0%
3.	Comminuted	0	0
4.	Sutural	2	2.70%
5.	Fissured + Depressed	1	1.35%
6.	Fissured + Comminuted	1	1.35%
7.	Fissured Depressed + Comminuted	2	2.70%
8.	Depressed + Comminuted	2	2.70%
9.	Crush (expressed fracture)	10	13.51%
10.	Surgical procedure	1	1.35%
11.	No. of cases with fracture vault	36	48.64%
12.	No fracture	38	51.35%

Fissured fracture alone was observed in 17 (22.97%) cases, whereas skull vault was seen crushed in 10 (13.51%)cases. Combination of Fissured + Depressed + Comminuted fracture, combination of Depressed + Comminuted fracture was noted in 2 (2.70%) cases respectively. No single case was found having either depressed and comminuted fracture alone.

B) Pattern of skull base fracture-

Fractures of skull base were observed in 32 (43.24%) cases, distribution as per the types of fracture are summarized in the following table.

Table: 2

No.	Combination of skull base fracture	No. of cases	Percentage
1.	Fissured	15	20.27%
2	Hinge fracture type I	1	1.35%
3	Hinge fracture type II	1	1.35%
4.	Hinge fracture type III	1	1.35%
5.	Ring fracture	5	6.75%
6.	Combination	7	9.46%
7.	Crush (Expressed fracture)	3	4.05%
8.	No. of cases with fracture base	32	43.24%
9.	No Fracture observed at skull base	42	52.70%

Fissured fracture of base of skull which was an extension from skull vault was observed in 15 (20.27%) cases. Base of skull was crushed in 3 (4.05%) cases. Ring fracture and other combination of fracture was observed in 12 (16.21%) cases. Hinge fracture type I, Hinge fracture type II and hinge fracture type III was present only in 1 (1.35 %) cases respectively.

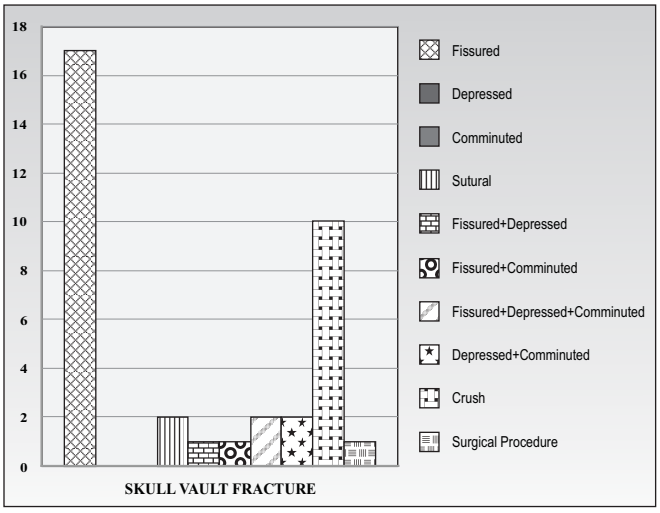


Fig. 1 - Pattern of skull vault fractures

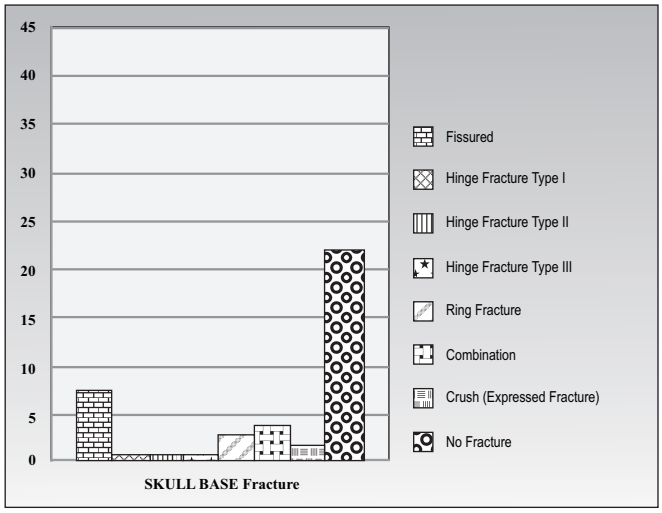


Fig. 2 - Pattern of skull base fractures.

C) Condition of the meninges-

Duramater was found intact in 57 (77.02%) cases. It was torn in 16 (21.62%) cases where as in 1 (1.35%) case it was sutured surgically.

Table: 3

Condition of Duramater	Intact	Torn	Sutured	Total
No of cases	57	16	1	74
Percentage	77.02%	21.62%	1.35%	100%

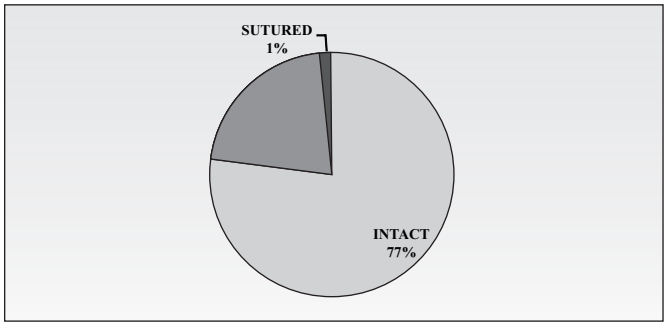


Fig. 3 - Condition of the meninges

D) Traumatic lesions of the Brain-

Traumatic lesions in the form of contusion, laceration, traumatic brain swelling with edema, combination of contusion + herniation of brain were observed in 48 (64.86%) cases. Out of these 48 cases, only contusions were observed in 17(22.97%) cases, only lacerations in 9 (12.16%) cases,contusion with laceration in 5 (6.75%) cases, traumatic brain swelling with edema was observed in 15 (20.27%)cases.In 1 (1.35%) case brain was missing from the skull cavity, where as in 1(1.35%) case it was surgically operated.

So out of total 74 cases studied traumatic lesions of the brain was observed in 48 cases where as in remaining 26 cases (35.13%) no traumatic lesion was observed.

Table: 4

Traumatic lesion of brain	No of cases	Percentage
Only Contusions	17	22.97%
Only Lacerations	9	12.16%
Traumatic brain swelling and herniation	15	20.27%
Contusion + laceration	5	6.75%
Missing	1	1.35%
Liquefied	0	0%
Operated	1	1.35%
No of cases with traumatic lesions	48	64.86%
No lesion	26	35.13%
Total no of cases	74	100%

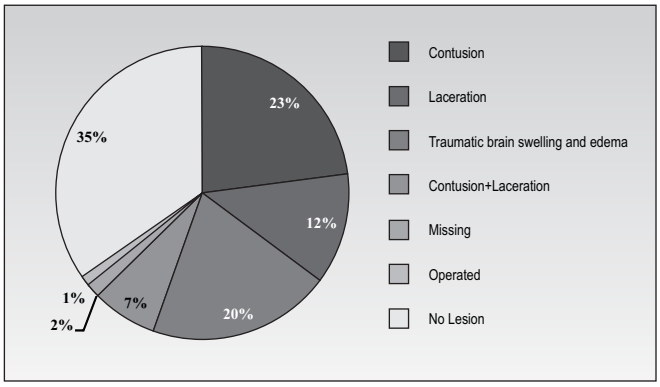


Fig. 4 - Traumatic lesion of brain

E) Intracranial hemorrhages-

Following table shows different intracranial hemorrhages:-

Table: 5

Intracranial haemorrhage	No of cases	Percentage
Extradural haemorrhage	5	6.75%
Subdural haemorrhage	28	37.83%
Subarachnoid haemorrhage	28	37.83%
Intraventricular haemorrhage	4	5.40%
Intracerebral haemorrhage	15	20.27%

N.B. There is overlapping as combination of hemorrhages present in the victims

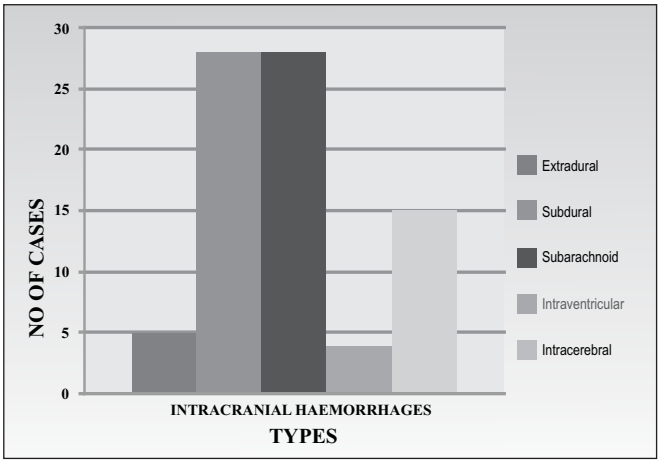


Fig. 5- Intracranial hemorrhages

In the present study subdural haemorrhage and Subarachnoid haemorrhage were seen in 28 (37.83%) cases each.

Intracranial hemorrhages were seen either in combination or in isolation which are summarized in following table-

Table: 6

Intracranial hemorrhages	No of cases	Percentage
Only Extradural haemorrhage	4	5.40%
Only Subdural haemorrhage	1	1.35%
Only Subarachnoid haemorrhage	2	2.70%
Only Intraventricular haemorrhage	3	4.05%
Only Intracerebral haemorrhage	6	8.10%
Extradural + Subdural	1	1.35%
Subdural + Subarachnoid	16	21.62%
Subdural + Subarachnod + Intraventricular	1	1.35%
Subdural + Subarchnoid + Intracerebral	9	12.16%
Total no of ICH	43	58.11%
No hemorrhages	31	41.89%

It was observed that combination of subdural + subarachnoid hemorrhages is the most common pattern seen in railway trauma; it was observed in 16 (21.62%) cases, followed by combination of subdural + subarachnoid + intracerebral hemorrhages in 9 cases (12.16%).

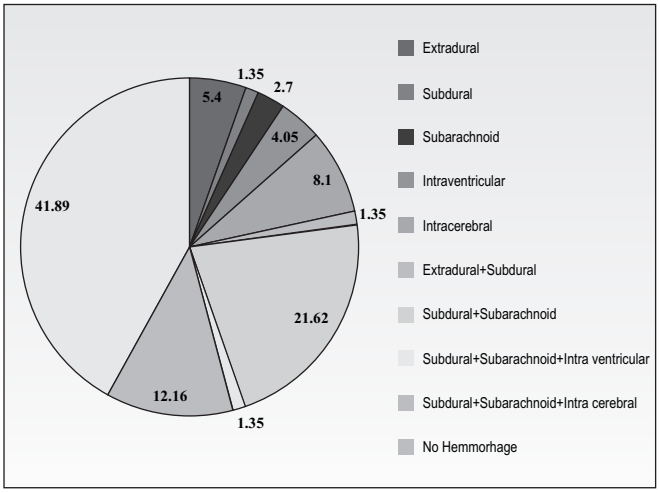
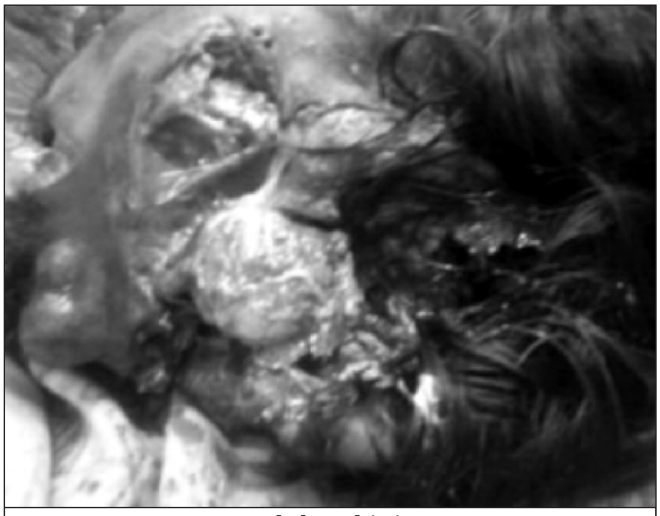


Fig. 6- Combination of intracranial hemorrhage

Risky Behaviour of peoples while travelling



Crush head injury

Discussion:

Fractures of the skull vault were observed in 48.64% cases. Fissured fracture alone was observed in 22.97% cases, skull vault was crushed in 13.51% cases. Combination of Fissured + Depressed + Comminuted fracture and, combination of Depressed + Comminuted fracture was noted in 2.70% cases each. No single case was found having either depressed and comminuted fracture alone.

Study done by Patil et al (2000)9 observed 67% skull vault fracture. No other authors have observed these findings in their study except, In the study done by Sabale PR and Mohite SC (2005-2008)12 observed that fissure fracture of skull vault was observed in 17.34% cases whereas skull vault was crushed in 11.07%. Comminuted fracture was

noted in 9.41% and combination of comminuted fracture with depresses fracture was noted in 9.04%. Findings of our study does not match with the observations made by above mentions authors study.

Fracture of skull base: Fissured fracture of base of skull which was an extension from skull vault was observed in 20.27% cases. Base of skull was crushed in 4.05% cases. Ring fracture was observed in 6.75% cases and combinations of all fractures were observed in 9.46% cases. Hinge fracture type I, Hinge fracture type II and hinge fracture type III was present in 1.35 % cases each.

Sabale PR, Mohite SC (2005-2008)12 observed that fissured fracture alone was seen in 23.25% cases. Base of skull was crushed in 9.59% cases. Type I hinge fracture in 10.89% was most common fracture at the base of skull followed by Hinge type II Hinge fracture which was present in 9.41% cases. Ring fracture was observed in 0.92% cases. No other author mentioned this kind of observation.

Duramater was intact in 77.02% cases. It was torn in 21.62% cases where as in 1.35% case it was found sutured surgically. No other author describe this kind of observation except Sabale PR & Mohite SC (2005-2008) 12, they observed that in 66% cases duramater was intact and in 32% cases it was torn. In 2% cases it was sutured as a part of surgical procedure. Observations of their study are little bit different than our study the reason beings unexplained.

Traumatic lesions to the brain were observed in 64.86% cases. Only contusions were observed in 22.97% cases, whereas only lacerations were observed in 12.16% cases. Contusion with laceration was observed in 6.75% cases. Traumatic brain swelling with edema was observed in 20.27% cases.

Patil Ajay et al (2000)9 observed that in 53% cases contusions of brain was present followed by laceration in 8%.

Patil Amit (2005)7 observed the cerebral contusion was seen in 62.96% laceration of the brain was seen in 26.45%.

Sabale PR, Mohite SC (2005-2008)12 observed that contusions were the commonest traumatic lesion to the brain and it was followed by lacerations. Combination of contusion and laceration was observed in 2.77% cases in 6.83% cases brain was missing. In 1.35% case brain was missing due to extensive injury.

Intracranial hemorrhages were observed in 58.11% cases. Subdural and subarachnoid hemorrhage was common seen in 37.83% cases.

Patil Amit et al (2005)7 however Rautji R. et al (2004)1 observed subdural hematoma as the most common intracranial haemorrhage in 61.42% cases which is not consistent with above mentioned findings in other study done by Patil et al (2007)9 where he found 56% subarachnoid hemorrhage and 30% subdural hemorrhage. These findings are absolutely reverse to our study findings. P Sabale and Mohite SC (2005-2008)12 observed that most common hemorrhages were subarachnoid haemorrhage 52.58%, followed by subdural haemorrhage was 38.01% again not consistent with our findings, the cause may be precarious.

Combination of subdural and subarachnoid hemorrhages is the most common pattern seen in cases of railway trauma; it was observed in 16 (21.62%) cases, followed by combination of subdural, subarachnoid and intracerebral hemorrhages in 9 cases (12.16%).

No other author described the combination of intracranial haemorrhage except the study done by Sabale PR & Mohite SC (2005-2008)12 that Subdural + Subarachnoid was observed in 23.25% cases.

The observations of different authors regarding head injury does not match with each other or with our study and the sole reason may be once again that the mutilation is severe in railway accidents which cannot be predicted.

Summary & Conclusion

- Fractures of skull vault were observed in 36 (48.64%) victims and fracture of skull base was

observed in 32 (47.29%) victims.

- In 57(77.02%) cases the meninges were intact. In 1(1.35%) case the meninges were sutured surgically.
- On internal examination the combination of subdural and subarachnoid hemorrhage was the most common pattern.
- Contusions were the commonest lesions of brain followed by traumatic lesion of brain and swelling.

References:

1. Ammamullah S. Railway Death in Jammu & Kashmir. Medical News Medicine & Law, 1983; 101-105.
2. Apurba Nandy (2010) Principles of Forensic Medicine including Toxicology (3rd Edn) new central book agency, Howrah: 473-474.
3. Arun M, Palimar V, Kumar GNP, Menezes RG. Unusual methods of suicide: complexities in investigation. Med Sci Law. 2010; 50:149–153.
4. Basu R, Bose TK. Batabyal S, Paul PB, Railway Fatalities Retrospective Study, 2002, Kolkata.
5. Dr J.S. Dalal, Dr H.R.Tejpal, Dr Ashok Chanana. "Cases on homicidal Railway accidents" from Journal Indian academy of forensic medicine :2006; 28(4): 159-161.
6. Gunajit Das, Nayan Mani Choudhury, SwarajPhukon, JayantaTalukdar. "A five year retrospective study of the cases at medicolegal autopsy in Silchar" International Medical Journal August 2014; 1(8): 377-380.
7. Patil Amit, Vaz W.F. " Pattern of Fatal Blunt injury- A two year retrospective/ prospective medicolegal autopsy study" topic of dissertation,2005, Mumbai.
8. Railways protection Force Act, 1957 under sec 2(e).
9. Patil Ajay , Apte V., " An autopsy Study of cases of Fatal Railway Injuries" topic of dissertation, 2000, Mumbai.
10. Rautji R, Dogra TD. Rail traffic accidents: a retrospective study. Med Sci Law, Jan 2004; 44(1):67-70.
11. Rothschild MA, Schneider V. Decapitation as a result of suicidal hanging. Forensic Science International, 1999; 106: 55-62.
12. Sabale PR, Mohite SC. Railway Fatalities in South West Mumbai. Medico-Legal Update - An International Journal, 2010; Volume 10, Issue 1, Print ISSN: 0971-720X.
13. Sahoo, P.C. Kar, S.M., Dash B.K., "Pattern of injuries in Railway deaths a retrospective study", 4th medicolegal bulletin- Forensicon, 1998, pp 71-5.
14. Transport and Works Act 1992, Great Britain.

Junk Food and Legal Issues ... (Contd...)

25. Jochelson K. Nanny or steward? The role of government in public health. Public Health. 2006 Dec;120(12):1149-55.
26. The European Union Pledge: white paper. 2007.
27. McClure AC, Tanski SE, Gilbert-Diamond D, Adachi-Mejia AM, Li Z, Li Z, et al. Receptivity to television fast-food restaurant marketing and obesity among U.S. youth. Am J Prev Med. 2013 Nov;45(5):560-8.
28. Sacks G, Veerman JL, Moodie M, Swinburn B. 'Traffic-light' nutrition labelling and 'junk-food' tax: a modelled comparison of cost-effectiveness for obesity prevention. Int J Obes (Lond). 2011 Jul;35(7):1001-9.
29. Hammond D, Lillico HG, Vanderlee L, White CM, Reid JL. The impact of nutrition labeling on menus: a naturalistic cohort study. Am J Health Behav. 2015 Jul;39(4):540-8.
30. Kerr MA, McCann MT, Livingstone MB. Food and the consumer: could labelling be the answer? Proc Nutr Soc. 2015 May;74(2):158-63.
31. Food Safety and Standards Rules. In: MOHFW I, ed. 2011.
32. Min of Information & Broadcasting India. The Cable Television Networks (Regulation) Act, 1995 In: Laws TBAC, ed. 1995.
33. Garg A. Experts shy from ban on junk food. The Times of India. 2014.
34. Vashishtha VM. Advertisement of food products for children: a tale of legality, ethics and indifference. Indian Pediatr. 2010 Oct;47(10):857-9.
35. Graff S, Kunkel D, Mermin SE. Government can regulate food advertising to children because cognitive research shows that it is inherently misleading. Health Aff (Millwood). 2012 Feb;31(2):392-8.
36. Tandon PS, Wright J, Zhou C, Rogers CB, Christakis DA. Nutrition menu labeling may lead to lower-calorie restaurant meal choices for children. Pediatrics. 2010 Feb;125(2):244-8.
37. Yamamoto JA, Yamamoto JB, Yamamoto BE, Yamamoto LG. Adolescent fast food and restaurant ordering behavior with and without calorie and fat content menu information. J Adolesc Health. 2005 Nov;37(5):397-402.
38. Miller SA, Taveras EM, Rifas-Shiman SL, Gillman MW. Association between television viewing and poor diet quality in young children. Int J Pediatr Obes. 2008;3(3):168-76.

POCSO Act 2012

Medico Legal Insight

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India almost has forty-two percent of population under age of 18 years and is the largest country in terms of child inhabitants in the world. Therefore their security and well being is a crucial aspect in all state of affairs to step up national growth and development. It is quite distressing that apart from anemia & malnutrition, the latest statistics of NCRB (2011) reports that there is an increasing trend of criminal offences against children. Ministry of women & child development revealed in a study (2007) that nearly fifty-three percent of children have faced some or the other form of sexual offence. Thus, a stringent law was always needed to protect the innocent children. "Protection of Child against Sexual Offence ACT 2012" is an answer to that need. The parliament of India conceded POCSO Bill 2011 into Act on 22nd May, 2012 which was ready for implementation on 14th November 2012. By definition, POCSO is an Act to protect children from offences of sexual assault, sexual harassment, pornography and provide establishment of special court for trial of such offences and matters connected therewith or incidental therewith (The Gazette of India, Ministry of Law & Justice Department, No. 32 of 2012 ,19 th June 2012)

Salient features

- This act includes not only penovaginal penetration as a criminal offence but all other variants and also non-penterative assault. It also criminalizes the act of immodesty against children or watching or collecting pornographic content in the form of video or pictures. The Act states that in any form of penetrative or non penetrative sexual assault the imprisonment will not be less than seven years and/or fine.
- The term "Aggravated sexual assault" is with reference to the victim who is mentally challenged or committed by a trustworthy person like a family member or a family friend, or a close relative, or by the authority like police official, educator, warden, staff of the institute, or a doctor. In this case punishment will not be less than ten years with and/or fine.
- Persons involved directly or indirectly in the trafficking of children in sex industry are also liable to be punished under provision of abetment in this Act.
- Therefore POCSO imposes stringent punishment according to the gravity of the offence which can be up a rigorous life imprisonment.
- In this ACT the onus lies on the accused to prove himself not guilty. Otherwise court takes him as culprit. The expenses of the court and other burden have to be paid by accused. So it offers zero tolerance to the accused.
- The Act also mandates reporting of the offence. A person who is aware of this fact & doesn't report what so ever be the reason he or she will be liable of punishment for six months or so with a fine. It also states that if a person provides false information to defame the child or per se then also punishment is imposed.
- The Act also identifies police as a responsible protector of the sexually abused child in the

investigating process. Within 24 hours police officer should inform the CWC. The police has to make all arrangement regarding medicolegal reporting and also treatment.

- There is provision in the act to prevent re victimization of the child in the hands of judiciary system. Special court has to be arranged with cameras. All precaution has to be taken so that not to reveal identity of the child and the environment should be as friendly as possible, family member or a trustworthy person to the child can stay with him/her during interrogation.
- Medical examination – The victimized child should be given medical aid without any delay. In case of a girl female doctor should examine the child with utmost empathy and skill. It should be done in the presence of parents, trustworthy person or if no one then the one who hospital in charge authorizes. All expenses on medical management has to be taken care by the hospital.

Medico legal Insight:

- In the present scenarios it is a well recognized fact that the victim of sexual offence needs immediate attention as per medical needs and also collection of evidence because there are fair chances to lose the circumstantial clues as time goes by. POCSO Act 2012 has affirmed very significant guidelines in terms medical examination .
- According to the Act the examination of the victim of sexual offence is a medicolegal emergency
- This should not be delayed and it doesn't necessitate police requisition or magistrate order. The hospital has to provide immediate first aid. (POCSO Act , section 27, rule 5) .
- It is mandatory for the doctor or the hospital to inform the police about the sexual offence .
- The doctor will be liable to the punishment if directions not followed (POCSO Act, section 19&21). Though there are many predicament in mandatory reporting because many a times the female victim do want medical treatment or MTP but need a space to think over or refrain from reporting to the police. But the law mandates the doctor or the hospital to do so. Therefore doctor is in fix, whether to follow ethics about confidentiality of consent during treatment or abide law. This may jeopardize the medical management. Without informed consent the doctors cannot examine any person but as POCSO act, section 5 no hospital or doctor can deny medical management t o victim of sexual offence.
- All hospitals, irrespective of government or private sector, are mandated to give first aid to the victim of sexual offence. (section 357 C, CrPC).
- According to POCSO, section 27 insists only female doctors to examine the girl victim. In many rural hospitals there are no female doctors and even if present they are overscheduled which delays the medical treatment and hastens loss of vital evidence pertaining to offence.
- Rule 5 of POCSO states that it is mandatory for the doctor to provide comprehensive care to the victim which includes treatment to injuries, HIV, pregnancy, emergency contraception psychotherapy, rehabilitation and follow up care too. Section 357 C CrPC states all this has to be provided by the doctor or hospital free of cost otherwise he or she would be liable to one year imprisonment and/or fine.
- It is very important to document time and date of examination because with delay of every

hour the evidence may differ or be lost due natural call like urination, defecation etc. Therefore the examination of the victim is a medico legal emergency and should be given priority by the doctors and hospital.

- The medical opinion given by the doctor in the case of sexual offence has major impact on the proceeding of the case. Suppose a doctor's provisional opinion is that spermatozoa might be present but has to be confirmed by the lab. In this situation the investigating officer under pressure may jeopardize the case and the accused though culprit may be out on bail. Therefore, the doctor should give a reasoned final opinion such as spermatozoa may be present but due to condom or menstruating or bathing or washing or any reason of delayed medical examination must have washed of the semen. All hospital should have sexual assault forensic evidence kit (SAFE) Kit Special investigation like culdoscopy or two finger test is not recommended. Toludine dye test for micro injuries has its own limitation and false positive test by Wood's Lamp test for the semen is well known. As penetration by other object or non penetrating sexual assault also comes under POCSO therefore careful medical examination and medical opinion is relevant at utmost degree for the child victim.

- In India DNA examination of the substantial evidences of all cases of sexual violence is very difficult because of understaffed forensic lab and moreover In India we don't have DNA database of criminals even and the DNA of the accused is seldom available for comparison .

- According to section of 53 CrPC some amount of force can be applied for the medical examination of the accused. But irony is that he is seldom caught at the time or within a day or so of incident in India. Potency test has no relevance or importance in the present description of sexual offence. The examination of the accused has to be done after informed consent but if the person refuses then refusal of consent can be documented.

- There is lot of medico legal issues in medical examination of the child victim of a sexual offence. But in present situation degradation of moral values of humankind is increasing day by day. Asian center of Human Rights reports that there is 336% increase in sexual violence against children from 2001 to 2011. Disbelief, denial and cover up to preserve family reputation has made CSA an invisible crime in India. It is high time and as a responsible citizen of our country it becomes our ethical duty to handle these scenarios with utmost medical skill, sensitivity and empathy. Now with POCSO and CrPC we have set protocol and guidelines by Ministry of Health and Family Welfare regarding medico legal care of victim or survivor of sexual offence. Medical examination of the child subjected to sexual offence needs expertise and a mental state to understand the gravity of the situation. Thus proper training in this area should be taken by the doctors so that they do not fall short in their task and land up with medico legal problems.

Reference :

1. The Protection of Child Sexual Offence Act, 2012(No 32,of 2012) The Gazette of India, Part II, Section I, New Delhi, June 20, 2012.
2. Guidelines for medico legal care for Victim of Sexual violence, WHO 2003
3. Guidelines & protocol – Medico legal care for survivors/victims of sexual of violence, Ministry of Health and Family Welfare, GoI, 2014 .
4. Wood's lamp utility in detection of semen. Pediatrics 1999, December.

Medicolegal News

A Multispecialty hospital, Sarita Vihar, New Delhi and its doctor told to pay Rs 1 crore to a couple

Source: Indian express.
By: Express News Service; New Delhi; April 27, 2015

The National Consumer Disputes Redressal Commission (NCDRC) has directed a corporate hospital in sarita Vihar ,Delhi, and a gynaecologist associated with the hospital to pay Rs 1 crore as compensation to a couple for the disability and eventual death of their daughter due to alleged substandard care during labour. The commission said Corporate hospitals and specialists are expected to perform at a higher level than other hospitals/general practitioners. The child had suffered birth asphyxia resulting in cerebral palsy during birth in 1999. The parents approached the consumer commission in 2002 with a claim of medical negligence. The child died while the case was before the commission. Of the Rs 1 crore awarded to the doctor couple, Rs 80 lakh has to be paid by the hospital and the remaining Rs 20 lakh by Dr Sohini Verma, the gynaecologist.

The couple had conceived after several years of infertility treatments. The mother was admitted to hospital for delivery. The NCDRC, in its order issued last week, observed that the gynaecologist and the hospital delayed giving an emergency Cesarean section to the child's mother at the time of her labour and provided high dosage of drugs.

"Patient with precious pregnancy was unnecessarily suffered during prolonged labour; there was administration of excessive Syntocinon which caused birth asphyxia to the baby Nishtha, who further suffered cerebral palsy and 95% disability. She survived in such pathetic condition for 12 years," the commission noted.

"Sufferings of mother and also the child's sufferings for 12 years, treatment and other expenses, the mental agony and trauma to the parents who suffered loss of their baby and thereon the quantum of interest on such amount. Therefore, putting further reliance upon the judgments of Hon'ble Apex Court for award of compensation, we are of considered view to allow a lump sum award of compensation of Rs 1 crore, which according to us is just and proper," the NCDRC held.

The Commission has now held that "substandard care to the patient during labour resulted in poor outcome despite using modern technology of cardiography (CTG). Inability to interpret the CTG trace, i.e., poor pattern recognition, failure to correlate to the pathophysiology that causes the CTG changes, not taking into consideration the clinical situation that may suggest foetal distress and delay in taking appropriate action due to poor communication and team work were reasons for the poor outcome.

Further the court also noted that the hospital had

filed "tampered' medical records of the mother's treatment after delaying for several years.

PGI directed to pay Rs 17 lakh for delay in treatment leading to patient's death

Source: www.indiamedicaltimes.com/2015/05/29/ Friday, May 29, 2015,by Namrata Choudhury

New Delhi: The National Consumer Disputes Redressal Commission (NCDRC) has directed the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh to pay Rs 17 lakh as compensation to the parents of Anupama Sarkar, parents of a 16 yr old school girl who died in July 2012 in what has been held by the NCDRC as a case of medical negligence."It is really unfortunate that due to the bureaucratic approach and red tapism adopted by the hospital, a precious life of young girl could not be saved," a two-member NCDRC bench, comprising of presiding member Justice V B Gupta and member Suresh Chandra, said in its order dated May 21, 2015.The court further said, the PGI "is a prestigious medical institute. Therefore, it is expected from such institute that it should work not in a purely bureaucratic manner i.e. patient should be treated as per seniority in the queue, but it should be run in a professional manner."

"The mechanism of injury of this patient should have raised a high index of suspicion that the patient had sustained crush injury of the thigh and was likely to develop serious complications. However, the team decided to stick to their previous waiting list and hence this patient could not be taken for surgery till 19.7.12," the inquiry report said.

According to the court records, on July 17, 2012, as Anupama Sarkar, a resident of Mauli Jagran complex in Chandigarh and the only child of her parents, tried to board a CTU bus near the Government Model Senior Secondary School in Sector 18, where she studied, she fell down from the bus and her left leg was crushed under the rear tyre of the vehicle. She was rushed to the Advance Trauma Centre of the PGIMER where, following alleged delay in proper medical care, she developed gangrene and septicaemia which ultimately led to the amputation of her leg. It also resulted in the spread of infection into her entire body, which took her life on July 24.

Anupama's parents then approached the State Consumer Disputes Redressal Commission to fight for compensation. However, denying the charges, the PGIMER in its affidavit said, "Anupama was planned for surgery at the time of admission itself, but that the procedure was delayed due to a heavy rush of patients."

On April 4, 2013, the state commission ordered the PGIMER to pay Rs 7 lakh and CTU to pay Rs 3 lakh to Anupama's parents. However, this order was challenged by Anupama's parents who sought higher compensation in the national commission. The PGIMER too filed an appeal before the national commission.

Readers Ask, Experts Answer

Q1. Is animal bite an MLC?

Answered by:
Dr. Archana Tiwari
Obstetrician & gynecologist
Apex Hospital, Gwalior
E-mail: archana_mukul@yahoo.co.in

Answer: All bites which are grievous in nature & endanger life of victim are MLCs. Snake bite can kill the victim within 24 hours, & many cases of foul play have been reported in which snakes were put in pot intentionally by rivals to kill others for property. And it becomes a non-bailable offence under 328 IPC (grievous hurt by poison). If a farmer dies due to snake bite while working in fields, then Rs.50,000 compensation is given by Forest department under Wildlife Protection Act.

Same is applicable in death by bites by wild cats like Lion, Tiger, Leopard & Fox. So hurt by all wild animals is an MLC for claiming compensation. Recently, a man fell in Zoo in Tiger's cage, Govt provided 1lakh to the next of kin after it was proven in postmortem done in AIIMS that the man died due to tiger bite, due to negligence of zoo authorities in protecting visitors. Human bite is an MLC, because it is intentional harm done, Mike Tyson bit the ear of his rival player which resulted in permanent disfiguration of face. Law takes human bite by cutting canine teeth as a sharp weapon, & becomes a non-bailable offence under 324 IPC (grievous hurt by sharp weapon). Dog bite can be MLC, if bitten by pet dog because it is suspected foul play. Police complaints were made that two neighbours during mutual quarrel ordered the tamed pet dog to bite the other neighbour to settle scores. Since dogbite can lead to rabies, a life theatening infection, so it can be a non-bailable offence under 328 IPC (greivous hurt by endangering life) & 270 IPC(Malignant act likely to spread infectious disease dangerous to life) with imprisonment of 2 yrs.

Q 2. A 17 yrs old unmarried girl comes for amenorrhea. She is diagnosed to have 8.6 weeks pregnancy on USG (all formalities done as per PCPNDT). Now mother (father expired 6 years back) & patient requesting for MTP. Please clarify regarding:

- *Legal duty of gynecologist about informing to police?*
- *What if girl is giving in writing (in presence of her mother) that it was not forceful sexual act?*
- *What gynecologist should do if mother & patient do not wish to inform police & also request for MTP?*
- *Please give your valuable suggestion in such situation to help practicing obstetricians to follow the law as well as help the patient.*

Answered by:
Dr. Charu Mittal
MD, DNB
Consultant Gynecologist, Gwalior
Ex-Assistant Professor, Medical college, Baroda
Managing Editor, Journal of Indian Medico-Legal and Ethics Association
Member, Medico-Legal and Ethics Committee, FOGSI

Answer: The fact that the girl sought an abortion itself indicates it's an unwanted pregnancy arising either out of abuse or an illicit relationship. This particular situation raises the matter of discrepancy between the provisions of the POCSO Act and MTP Act. When a woman, below the age of 18 years seeks an abortion - under the Medical Termination of Pregnancy Act, 1971 she has a legal right to seek abortion with complete confidentiality but the Protection of Children from Sexual Offences Act, 2012 and the

Criminal Law Amendment Act, 2013 criminalises sex below the age of 18 years even if it is consensual, thereby it is presumed pregnancy is a result of rape. So there are intrinsic contradictions in these Acts from the point of view of health professionals. Thus every girl under 18 who is pregnant should be considered as a rape victim. As per the provisions of POCSO, doctors who come across cases in which under-18 girls seek medical termination of pregnancy should inform the police. Thus POCSO has raised the age of consensual sex to 18 years.

Another aspect is the need to report. One of the biggest concerns, that of under reporting of child sexual offences, has been dealt with in Sec. 21 - any person, who has knowledge that an offence has been committed, has a mandatory obligation to report. Failure to report attracts punishment with imprisonment of up to six months or fine or both. So doctors have to make judgment calls with reference to the contradiction between MTP Act which permits safe abortion for adolescent girls in confidentiality where as under the POCSO Act medical professionals are to report any case of abortion of adolescent girls as statutory rape. Presently POCSO poses a major challenge due to mandatory reporting and does not differentiate between cases of sexual violence and consensual sex for this age group.

Legal duty of gynecologist about informing to police?

Answer: Since this issue would come under the POCSO Act 2012 (Protection of Children from Sexual Offences Act) as the girl is unmarried and less than 18years of age. So such sexual activity resulting in pregnancy should be informed to i) Special Juvenile Police or ii) Local police. {Chapter 5 Section 19 (1)}

What if girl is giving in writing (in presence of her mother) that it was not forceful sexual act?

Answer: Such a statement given informally even in writing to a gynecologist would not be a legal document and allegation can be made later that it was a statement given under pressure. If at all to be considered valid it should be in front of a legally authorized person like the police or magistrate.

What gynecologist should do if mother & patient do not wish to inform police & also request for MTP?

Answer: The POCSO Act needs additional provisions for differentiation between consensual sex and child abuse. Till such changes are incorporated in the Act it is safer to refer such a case to government hospital for needful to avoid later allegations of sexual assault/ filing of a case of rape in which performing an MTP may be considered as destruction of evidence on part of the gynecologist.

Please give your valuable suggestion in such situation to help practicing obstetricians to follow the law as well as help the patient.

Answer: An obstetrician can either refer the case or suggest to the mother and girl to file an application for termination of such pregnancy in Special Court and if they agree & the permission is granted, obtain the court order in hand for doing an MTP. After fulfilling routine prerequisites such as taking consent of mother as the legal guardian, filling the relevant forms and selecting the correct indication (like the continuance of pregnancy involves a risk to the life of the pregnant woman or grave injury to her physical or mental health.) termination of pregnancy may be done in an authorized centre by authorized person. The evacuated material must be preserved and handed over to the police for necessary testing (eg DNA analysis for establishing paternity). Routine intra and post procedure care and follow up should be provided. Rule 5 of POCSO Rules specify that treatment should include care for Injuries, STD, HIV, Pregnancy testing, Emergency contraception, psychological counselling.

Professional Assistance / Welfare Scheme

1. The scheme shall be known as PAS **"Professional Assistance Scheme"**.
2. **ONLY the life member of IMLEA** shall be the beneficiary of this scheme on yearly basis. The member can renew to remain continuous beneficiary of this scheme by paying renewal fees every year. The scheme shall assist the member ONLY as far as the medical negligence is concerned.
3. This scheme shall be assisting the members by:
   i. **Medico-legal guidance** in hours of crisis. A committee of subject experts shall be formed which will guide the members in the hours of crisis.
   ii. **Expert opinion** if there are cases in court of law.
   iii. **Guidance of legal experts.** A team of Legal & med-legal experts shall be formed which will help in guiding the involved members in the hours of crisis.
   iv. **Support of crisis management committee** at the city / district level.
   v. **Financial assistance** as per the terms of agreement.
4. The fund contribution towards the scheme shall be decided in consultation with the indemnity experts. The same will depend on the type & extent of practice, number of bed in case of indoor facilities & depending upon the other liabilities.
5. A trust / committee / company/ society shall look after the management of the collected fund.
6. The Financial assistance will be like Medical Indemnity welfare scheme, where indemnity part shall be covered by government / IRDA approved companies or any other private company. The association shall be responsible only for the financial assistance. Any compensation/cost/ damages awarded by judicial trial shall be looked after by government / IRDA approved insurance companies or any other similar private company.

Admission Fee (One Time, non-refundable)		
1	Physician with Bachelor degree	Rs. 1000
2	Physician with Post graduate diploma	Rs. 2000
3	Physician with Post graduate degree	Rs. 3000
4	Super specialist	Rs. 4000
5	Surgeons, Anesthetist etc	Rs. 5000
6	Surgeons with Super specialist qualification	Rs. 6000

		Annual Fee for Individual	Annual Fee for Hospitals Establishment
1	Physician / doctors with OPD Practice	Rs. 60 / lakh	Rs. 340 / lakh + Re. 1 / OPD Pt + Rs. 5 / IPD Pt + 7.5 % of basic premium + Service Tax 10.3 % on the Total
2	Physician / doctors with Indoor Practice	Rs. 115 / lakh	
3	Physician / doctors with Indoor Practice of Surgeon	Rs. 230 / lakh	
4	Physician / doctors with superspecialty, Anesthetist etc	Rs. 340 / lakh	
5	• **Rs/- 1000 (One thousand) per year** shall be collected to develop the fund of the IMLEA towards emergency assistance, risk management and conducting trainings, CME, workshops etc. • Physician / doctors visiting other hospitals shall have to pay 5% extra. • For unqualified staff extra charges of 8% shall be collected. • The additional charges 15 % for those working with radioactive treatment. • The additional charges can be included for other benefits like OPD/ indoor attendance, instruments, fire, personnel injuries etc.		

7. Experts will be involved so that we have better vision & outcome of the scheme.

8. The payment to the experts, Legal & med-legal experts shall be done as per the pre-decided remuneration. Payment issues discussed, agreed and processes shall be laid down by the members of these scheme.
9. If legal notice / case are received by member he should forward the necessary documents to the concerned person.
10. Reply to the notice/case should be made only after discussing with the expert committee.
11. A discontinued member if he wants to join the scheme again will be treated as a new member.
12. Most of the negligence litigations related to medical practice EXCEPT the criminal negligence cases shall be covered under this scheme. The scheme will also NOT COVER the damages arising out of fire, malicious intension, natural calamity or similar incidences.
13. All the doctors working in the hospital (Junior, Senior, Temporary, Permanent etc) shall be the members of the IMLEA, if the hospital wants to avail the benefits of this scheme.
14. The scheme can cover untrained hospital staff by paying extra amount as per the decision of expert committee.
15. A district/ State/ Regional level committee can be established for the scheme.
16. There will be involvement of electronic group of IMLEA for electronic data protection.
17. Flow Chart shall be established on what happens when a member approaches with a complaint made against him or her [Doctors in Distress (DnD) processes].
18. Telephone Help Line: setting up and manning will be done.
19. Planning will be done to start the Certificate/ Diploma/ Fellowship Course on med-leg issues to create a pool of experts.
20. Efforts will be made to spread preventive medico-legal aspects with respect to record keeping, consent and patient communication and this shall be integral and continuous process under taken for beneficiary of scheme by suitable medium.

List of Members
Professional Assistance Scheme (PAS) IMLEA

Name	*Place*	*Speciality*
Dr. Dinesh B Thakare	Amravati	Pathologist
Dr. Satish K Tiwari	Amravati	Pediatrician
Dr. Rajendra W. Baitule	Amravati	Orthopedic
Dr. Usha S Tiwari	Amravati	Hospi/ N Home
Dr. Yogesh R Zanwar	Amravati	Dermatologist
Dr. Ramawatar R. Soni	Amravati	Pathologist
Dr. Rajendra R. Borkar	Wardha	Pediatrician
Dr. Alka V. Kuthe	Amravati	Ob. & Gyn.
Dr. Vijay M Kuthe	Amravati	Orthopedic
Dr. Neelima M Ardak	Amravati	Ob. & Gyn.
Dr. Vinita B Yadav	Gurgaon	Ob. & Gyn.
Dr. Balraj Yadav	Gurgaon	Pediatrician
Dr. Kiran Borkar	Wardha	Ob. & Gyn.
Dr. Prabhat Goel	Gurgaon	Physician
Dr. Sunil Mahajan	Wardha	Pathologist
Dr. Ashish Jain	Gurgaon	Pediatrician
Dr. Neetu Jain	Gurgaon	Pulmonologist
Dr. VP Goswami	Indore	Pediatrician
Dr. Bhupesh Bhond	Amravati	Pediatrician
Dr. RK Maheshwari	Barmer	Pediatrician
Dr. Jayant Shah	Nandurbar	Pediatrician
Dr. Kesavulu	Hindupur AP	Pediatrician
Dr. Ashim Kr Ghosh	Burdwan WB	Pediatrician
Dr. Ashish Satav	Dharni	Physician
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Dr. Sanjeev Borade	Amravati	Ob. & Gyn.
Dr. Prashant Gahukar	Amravati	Pathologist
Dr. Satish Agrawal	Amravati	Pediatrician
Dr. Ashwin Deshmukh	Amravati	Ob. & Gyn.
Dr. Anupama Deshmukh	Amravati	Ob. & Gyn.
Dr. Ramesh Tannirwar	Wardha	Ob. & Gyn.
Dr. Sameer Agrawal	Jabalpur	Pediatrician
Dr. Sheojee Prasad	Gwalior	Pediatrician
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Dr. Shyam Sidana	Ranchi	Pediatrician
Dr. Umesh Khanapurkar	Bhusawal	Pediatrician
Dr. (Mrs.) Khanapurkar	Bhusawal	Gen Practitioner
Dr. Pratibha Kale	Amravati	Pediatrician
Dr. Milind Jagtap	Amravati	Pathologist
Dr. Varsha Jagtap	Amravati	Pathologist
Dr. Rajendra Dhore	Amravati	Physician
Dr. Veena Dhore	Amravati	Dentistry
Dr. Nilesh Toshniwal	Washim	Orthopedic
Dr. Swati Toshniwal	Washim	Dentistry

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Name of the Applicant _____
Surname *First Name* *Middle Name*

Date of Birth _____ Sex _____

Address of Correspondence _____

_____

Telephone *Residence* _____ *Hospital* _____ *Other* _____

Mobile _____ *Fax* _____ *e-mail* _____

Name of the Council *(MCI/Dental/Homeopathy/Ayurved /Other)* _____

Registration No. _____ Date of Reg. _____

Medical / Legal Qualification	University	Year of Passing

_____ _____

Name, Membership No. & Signature of Proposer Name, Membership No. & Signature of Seconder

A. Experience in legal field *(if any)* : _____

B. Was / Is there any med-legal case against you /your Hospital *(Yes / No)* : _____ If Yes, Give details

_____

C. Do you have a Professional Indemnity Policy *(Yes / No)* : _____ If Yes, Give details

Name of the Company _____ Amount _____

E. Do you have Risk Management Policy *(Yes / No)* : _____ If Yes, Give details

Name of the Company _____ Amount _____

F. Is your relative / friend practicing Law *(Yes / No)* : _____ If Yes, Give details

Name _____ Qualification _____ Place of Practice _____

Specialized field of practice (Civil/Criminal/Consumer/I-Tax/other) _____

G. Any other information you would like to share *(Yes / No)* : _____ If Yes, please attach the details

I hereby declare that above information is correct. I shall be responsible for any incorrect / fraudulent declarations.

Place:

Date: (Signature of Applicant)

Enclosures: True Copy of Degree, Council Registration Certificate & photograph.

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