

membrane proteins. These are very complex interactions and have gained importance in tumour biology. Epitope specific Monoclonal Antibodies have an important role in the study of these interactions. The interactions of CK with other cellular proteins are an important area of basic research: particularly, the involvement of CK in cell-cell and cell-ECM (Extra Cellular Matrix) interactions and signaling. Although very little is known about the exact role of CK in signaling, a large amount of literature shows the importance of CK and their interactions with, membrane proteins like integrins, Bullous pemphigoid antigens and other cytoskeletal proteins. A review of literature suggests that a large number of groups are working in this field worldwide. These studies require the use of not only monospecific but epitope specific antibodies. In basic research on cell structure, function and cellular differentiation, antibodies to CK can serve as fine and sensitive analytical tools. Confirmation specific and phosphorylation specific MAb are also of significance in these studies.<sup>1</sup>

#### Expression of Cytokeratins in Oral disease

Differences in CK expression have been shown between some Squamous Cell Carcinomas and their normal counterparts.<sup>6</sup> According to study done by Vaidya et al, differentiation dependent alterations in CK expression in Squamous Cell Carcinomas (SCC) of the Buccal Mucosa (BM). These alterations were of two types. (1) Aberrant expression of certain CKs not expressed in

the normal tissue; and (2) non-expression (or down regulation) of certain CKs which are expressed in the normal tissue. They observed loss of basal keratins CK 5 and 14 and aberrant expression of simple epithelial keratins occurs during malignant transformation of the human oral mucosae.<sup>6</sup> In a study done by C Li et al, in Warthin's tumour, keratins 7, 8, 18 and 19 were consistently detected in the epithelial cells of the tumour, a profile with a tendency to mimic the same in normal ductal epithelium.<sup>7</sup> In study conducted by S Boinsic et al, in Buccal Mucosa Lichen Planus, expression of cytokeratins 1, 2, 10 and 11 can be observed while decreased expression of cytokeratin 4 and 13. Further they have also reported moderate increase in cytokeratins 6, 16, 17 and 19. In case of Gingival Lichen planus, decreased expression of cytokeratin 1, 10, 11 and 13 was observed.<sup>8</sup>

#### Conclusion

Cytokeratins play an important role in molecular progression of certain diseases, their embryological development and lineage. A number of groups have studied CK expression in human oral precancer as well as cancer and some consistent patterns of CK expression have emerged from these studies. To list a few, anomalous expression of CK 1 and 10 in well-differentiated tumours developed from non keratinizing tissue like buccal mucosa; down regulation of differentiation specific CK like CK 1 & 10 and CK 4 & 13 in the supra basal layers of

both precancerous lesions and SCC and simultaneous appearance of basal CK like 5 and 14 in supra basal layers; aberrant expression of simple epithelia specific CK 8 and 18. Thus in conclusion it appears that CK and their associated proteins can be used as prognostic marker in oral cancer.

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## Ethics for Dentistry which are Forgotten

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#### Introduction

**E**thics is the philosophy of human conduct, a way of stating and evaluating principles by which problems of behaviour can be solved. Recently in the T.V show an episode was screened it got lot of flak from medical/dental organization. It was seen that due to ignorance on part of few professional the whole medical fraternity was shown in bad light.

In India the dentist are in every street in every neighbourhood, the pressure is much more. For this in India the dentist act was amended via 17A empowering the dental council of India to prescribe standards of professional conduct and etiquette.

Dental ethics is also closely related to law. In most countries there are laws that specify how dentists are required to deal with ethical issues in patient care and research. Usually the requirements of dental ethics and law are similar. But ethics should not be confused with law. One difference between the two is that laws can differ significantly from one country to another while ethics is generally applicable across national boundaries.

In the rural area the dentist: population ratio is 1:250,000 and in urban area the ratio is 1:10,000. This ratio is because of more than three-fourth of the dentist are clustered in urban area, this could be attributed to relatively high fees towards dental treatment, dental knowledge and the importance of oral health in the urban areas only.

Dental profession in India is regulated by the dental council of India and is financed by the ministry of health and family welfare, government of India. Ethics and resolution of the ethical problems have traditionally been addressed through the use of passed down act or statement that have been developed over a time through a unwritten protocol established and accepted by various professional clinicians.

Following are the some regulations which are commonly trespassed.

The code of ethics was formed by the dental council in 1975 and later notified by the government of India as dentist (code of ethics) regulation 1976 following are considered to be unethical practices:

1. Practice by unregistered persons employed by the dentist.
2. Dentist signed under his name and authority issuing any certificate which is untrue, misleading or improper.
3. Dentist advertising whether directly or indirectly for the purpose of obtaining patient or promoting his own professional advantage and the use of such words as teeth, painless extraction or flickering light sign showing any matter other than his name and qualifications.
4. Use of bogus diplomas etc.
5. Allowing commission.
6. Paying or accepting commission.

7. Undercutting of charges in order to solicit patient.

8. If consulted the dentist accepts charge of the case without request of the referring dentist.

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#### Conclusion

Rules and regulation are not followed effectively by dental practitioner in their clinical practice. A profession consists of a limited group of persons who have acquired some special skill and are therefore able to perform the function in the society better than the average person.

A professional person is expected to have respect for human beings, competence in his chosen field, integrity, and primary concern with service rather than with prestige or profit. Creating awareness amongst colleagues is our responsibility, and following them is theirs. As far as ethics and moral are concerned it only advisable that one goes for self regulation to ensure that the dignity and honour of the profession is maintained.

Ethical codes are important in developing higher standards of conduct for they are based upon what is considered to be the correct attitude and the correct procedure.