

Exposure of medical graduates in modern medicine to Ayurvedic medicine

Patwardhan *et al.*¹ have suggested how to catalyse Ayurvedic renaissance. We seem to have forgotten the great contributions of ancient Indian savants in various fields of physical and biological sciences. Western hegemony in education did not allow ancient discoveries by Indian savants to be widely known. Democritus overshadowed Kanad in atomic theory, Copernicus and Galileo overshadowed Aryabhatta in our understanding of the heliocentric universe and that the Earth is round not flat. Aryabhatta also said: 'Chala Prithvi Sthira Bhati Kadamba Kesara bat!', i.e. Earth which is round like the Kadamba flower (*Anthocephalus* sp.) is moving though it appears stationary.

Our ancient knowledge of centrifugal force and deep knowledge of *Nyaya shastra* helped them to argue rationally. It was assumed that if the Earth is rotating then we would have been thrown out of it; but Aryabhatta's opponent mentioned that it may not be necessary if the Earth is also attracting objects towards it, giving us the earliest hint of gravitational force—the credit for developing the theory of gravitation goes to Issac Newton.

In the same way, our rich heritage of Ayurveda has been neglected till the echoes of Brihat-Trayi on bodily habitus, i.e. ectomorphy, mesomorphy and endomorphy with *Vayu*, *Pitta* and *Kapha*

Prakriti or maternal origin of fetal *doshas* in Barker's maternal origin of adult disease, were heard.

When Bhavamishra writes in *Bhava-prakash* that placenta is contributed by father we ridicule it, but not so when genomic imprinting studies show preponderance of expression of father's gene in placental tissue. Patwardhan *et al.*¹ have rightly shown how the gurukul tradition used to produce four levels of understanding, i.e. *Adidhi*, *Bodha*, *Acharana* and *Pracharana* (teaching), unlike the present day where many students sublimate from *Adidhi* to *Pracharana*; they become teachers and lead students in the same way a blind man leads a blind to a blind alley.

Patwardhan *et al.* have explored various ayurvedic concepts through modern science beautifully, in figure 1 of their article, which should be an eye opener to many.

In Ayurveda, body management is holistic, i.e. care of the body, mind and soul. The subject is health-oriented and not disease-oriented. However there is no denial of the fact that modern medicine and its related science has extended human sense organs beyond unimaginable limits through various imaging and investigative techniques. But students of modern medicine who learn reductionist approach to science miss out on learning about

Ayurveda and fail to contribute scientifically to the subject.

While agreeing to the idea of Patwardhan *et al.*¹ that ayurvedic physicians should be exposed to tools of modern medicine, I feel, students of modern medicine should also be facilitated to learn Ayurvedic medicine though curricular reform and elective posting, for example, 1 year extra in MBBS leading to B Sc (Hons) in Ayurveda or some other related science.

There are also many medicines from herbal sources which are used by the tribals. These ethnomedicines have not been assessed adequately using ayurvedic principles. Hence a part of modern research should also incorporate various ethnomedicines in Ayurvedic medicine research.

1. Patwardhan, B., Joglekar, V., Pathak, N. and Vaidya, A., *Curr. Sci.*, 2010, **100**, 476–483.

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An opportunity to document subsurface sedimentary architecture

India is currently experiencing a construction boom and, at every level, be it a village or a town or a Metro, large scale construction work is being carried out. With emphasis on multistoried buildings generally digging up to 10 m or more is done. The size of the pits are large and provide a unique opportunity to document the subsurface sedimentary architecture of the site along with lateral and horizontal facies variation. And given that a large number of such pits are being made, a town level subsurface stratigraphy can be created with minimal effort and costs.

A well-conceived programme can then place this data on a GIS platform, along

with all sediment attributes, nature of the soil in immediate subsurface, remotely sensed images, DEM's and create a valuable database for a variety of issues ranging from town planning, drainage and transport networks, disaster management, seismic microzonation studies and sediment-related wave amplification factors. And this can be done relatively quickly by involving local municipal corporations/urban development bodies that may mandate/facilitate such studies for each site they approve; by involving local departments of geology/Geological Survey of India for formulation of parameter space for documentation and doing the actual quality control. The state depart-

ment of Remote Sensing can be requested to provide remote sensing and GIS-based inputs and integration.

I consider this is a rare opportunity to do good science at minimal costs. This could also be a valuable field training of students at graduate level in documenting and interpreting sedimentary architectures, soils and it will indeed be good to have a decent atlas of the Indian subsurface – the first 20 m.

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