

Prion body contamination: Is it not relevant in Indian context?

Sir,

In our day-to-day practice, we use a lot of disposable equipment for the conduct of anaesthesia. However, restrictions imposed by caregivers and management regarding cost factor puts the burden on anaesthesiologist to restrict the use of so-called “one-time use items.” The alternative is the use of re-sterilised items. In-house sterilisation processing plants are in place in some hospitals with good track record.

However, increasing awareness of the emergence of prion proteins and a variant of Creutzfeldt–Jakob disease (CJD) prompted many healthcare organisations in the west to switch over to the use of disposable items.^[1] Prion disease basically affects neural tissues and is considered resistant to treatment, with high fatality. Unfortunately, the usual disinfection procedures do not work in case of prion bodies. Flechsig *et al.* way back in 2001 had shown that an electrode used intracerebrally on a CJD patient transmitted the disease to two other patients.^[2] In mice experiments, it has been found that prions will readily and tightly bind to even stainless steel surface and is potent enough to transmit scrapie to another mice after a short exposure.^[2] This experimental situation can very well happen with the contaminated surgical instruments also. This can result in spread of prions to the next patient. In 2001, Miller and colleagues showed that most reusable anaesthetic equipment retained traces of proteinaceous materials.^[3] Blunt and Burchett estimated risk of prion contamination between 1 and 10/100,000 anaesthetics with reusable airway equipment.^[4] Following heightened concerns regarding bovine spongiform encephalopathy after prion contamination and its nature of resistance to decontamination, the UK Department of Health strongly advocated the use of disposable surgical equipment for tonsillectomy.^[1] This includes single use, standard and reinforced laryngeal masks, single use laryngoscope blades, handles and covers.

CJD is not unknown in the Indian context. However, the actual incidence is believed to be grossly underreported.^[5] In the CJD registry, National Institute of Mental Health and Neurosciences, Bengaluru (India), recorded 69 cases of CJD from different parts of India between 1968 and 1997.^[5] Sporadic cases were reported in other case series also.^[6]

Surprisingly, guidelines similar to the one in the UK are not mentioned in the Indian scenario. Possible reasons could be a lack of awareness of the problem or insufficient basic research on this particular infectious agent in the Indian contest. It is high time that there is a rethinking in our day-to-day practice with regards to disposable airway equipment, keeping in mind the health concerns of our population.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick response code	Website: www.ijaweb.org
	DOI: 10.4103/0019-5049.176274

How to cite this article: Rajesh MC. Prion body contamination: Is it not relevant in Indian context?. *Indian J Anaesth* 2016;60:140.