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LETTER TO EDITOR

ARE THE ENTERAL TUBES SUITABLE FOR DELIVERING DRUGS, OR IS IT ALREADY TIME TO SWITCH OVER?

*Debabrata Chakraborty

Apollo Multispeciality Hospitals, Kolkata, India

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Dear Editor,

Dysphagia is a common occurrence in people with neurological diseases, necessitating the use of enteral tubes for medicine administration. Often, the distal end of the feeding tube is located in the stomach, duodenum, or jejunum. Therefore, when administered lower down, medications like warfarin, which absorb high up in the small bowel, may not get absorbed as effectively.^[1] When crushed and ingested, extended-release formulations of some pharmaceuticals and important drugs, such as dabigatran, might result in unexpected drug levels. Due to time constraints, it is common for nurses to mix several medications at once and fail to flush the tube before the first medication and in between doses, resulting in lower drug efficacy and a higher risk of toxicity. Crushing and dissolving a tablet in water for enteral delivery may alter the pH of the mixture, causing the drug to rapidly break down into a poorly absorbed metabolite. So, we must encourage alternative methods such as external patches and the simple suspension technique (SSM), both of which have their own advantages. The SSM, which prevents crushing or opening the capsule, allows for the administration of tablets or capsules via a tube once they have broken down and suspended in hot water. Compared to crushing or opening, the SSM has a lower risk of tube blockage, fewer drug losses, no effect on physicochemical stability (at least for the drugs tested), and the potential to protect nurses from drug toxicity.^[2] Additionally, observations imply that this method takes less time than "crushing and giving" while improving drug adherence.

Benefits of transdermal patches include being less intrusive, delivering medication over an extended period, allowing for daily use, avoiding first-pass metabolism, and being patient-friendly, especially for those with cognitive impairment and swallowing difficulties.

The cutaneous delivery system will reduce the risk of aspiration pneumonia, which is not uncommon with enteral tubes. Transdermal patches will also resolve the issues associated with the brief half-life and erratic bioavailability of medications like heparin^[3].

Recent innovations have led to the development of 3D-printed, smart, biodegradable/soluble, and highly loading/releasing patches.^[4] These alternative methods must be widely available and affordable.

In addition to the scientific benefits, this will free up more time for nurses to provide better patient care, such as patient monitoring, which is crucial in a country like India where the patient to nurse ratio is relatively low.

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*Corresponding author: Debabrata Chakraborty

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