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A method to prevent kinking of gas sampling line

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Sir,

Monitoring of inspired and expired end-tidal carbon dioxide is as important as monitoring of oxygen saturation. The capnometry and pulse oximetry enables early detection and helps in avoiding ventilation mishaps.[1] Monitoring of anesthetic gas has gained importance as it helps in assessing depth of anesthesia. Hence, it is important that gas sampling line should be functioning i.e., no kinks, no leaks and dry enough. Many techniques are described to prevent kinks such as angled attachment of sampling line, [2] use of three way,[3] etc. It becomes very difficult to adjust the kink or to notice it especially when the sampling line is under the drape in case of head and neck surgeries. It is blamed that kinking and obstruction is seen mainly due to vertical position of gas sampling line. We used tubing of oxygen delivering device in which a slit was made from end-to-end and sampling line was placed [Figure 1]. This tubing is stiff enough and kink proof. The tubing has sufficient length so that it extends from patient end until monitor [Figure 2]. Kinking due to compression by weight of drapes and surgical equipment like cautery, suction tubes or assistant's hands can be easily prevented. In one of the innovation three way stop cock was placed to the gas sampling line near breathing circuit, but it increases chances of leak with possible increase in resistance and also cumbersome. [3] We feel our technique is much superior compared with the other techniques and successfully used more than 100 cases. Disadvantages may include difficulty in detecting damaged sampling gas line and difficulty to detect presence of water in the sampling line which can be overcome by repeated inspection before the start of case and flushing of sampling line[4] respectively. This is simple, easy, cost-effective technique, can be used even in vertical position of gas sampling line. We suggest one should adopt this to prevent mishaps.

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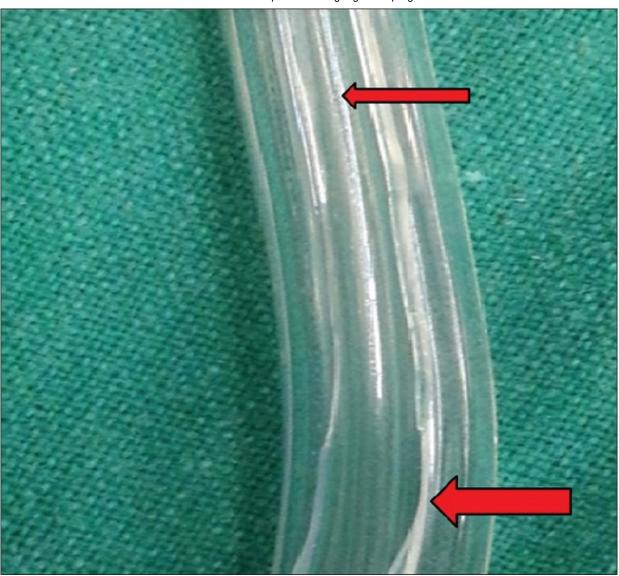
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Figures and Tables

Figure 1

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Upper arrow showing sampling line within tubing and lower arrow shows the slit

Figure 2



Protected gas sampling line from patient end

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