

**Modified Valve Mechanism to Avoid Gas Leak from Laparoscopic Cannula**

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**Abstract**

In the current research work, focused on the causes for gas leakage during laparascopic surgery and narrowed down the main causes of the same with valve issue. During laparascopic surgery CO2 gas is required to keep the abdominal cavity distended and provide space for surgery but due to gas leakage there is an anomaly in the same and the specified pressure is difficult to achieve and also it gives rise to enormous other surgery related problems [1,2]. The rationale for the same can be valve mechanisms so tried to design a better valve assembly with sliding mechanism that would fit in the existing devices to develop the proof of concept for the same.Currently available devices are not purpose specific and causes trauma to the insertion devices and it leads to other problems, also the valve gets damaged easily and does not fulfill the job after a certain period of time decreasing the overall life span of the devices[3,4]. Technical gap in current devices is they are specific to other nations and not built as per our Indian surgeon requirements also many of the solution proposed by the literature are not fulfilling for the concept [4]. To overcome the current problem working on the ground level along with surgeons from GNRC Guwahati and noting down their constant feedbacks and designing accordingly. Furthermore as soon as the proof of concept is built would replicate the model and try it in surgical operation.

References –

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