



Jugaad Trocar for a 5-mm Laparoscopic Cannula

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Abstract

When we are practicing, especially in rural India, we often face problems of instrument failure or lost instrument, etc... which may sometimes necessitate abandoning the procedure just because of the lack of a single instrument. We do mobile laparoscopic surgery, carrying all the laparoscopic instruments to far-off places, as far as 60–80 km. On one such occasion, my staff had lost a 5-mm trocar, which had gone unnoticed until I posted a case for laparoscopic cholecystectomy. There was not much time to buy a new one and also it was difficult to procure from the dealer because of the COVID-19 situation. Just because of the lack of one instrument we were facing a situation of postponing laparoscopy!

Keywords Innovation · Laparoscopic trocar · 5-mm cannula · Rural surgery · Resource constraints · Jugaad

Material

As they say, necessity is the mother of invention. We thought of using some alternative instrument to the trocar. We regularly use a Romovac suction drain for prevention of seroma in incisional hernioplasty. A used needle rod of the Romovac came in handy. Since it is slightly bent at the sharp end, we had to hammer it mildly to straighten it. Then we went to a local welding shop and explained him what we wanted. He cut the rod to an appropriate length and welded a stainless steel washer to the end of the rod. Also he shaped the sharp end to

the triangular shape of a regular laparoscopic trocar. The trocar was ready with a cost of about INR 100 within half a day!

The combination of images shown in Fig. 1 explains it all.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

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Fig. 1 Combination of images explaining the design

