

Instrument Malfunction With 23-gauge Transscleral Sutureless Vitrectomy

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Sutureless microincisional vitrectomy surgery (MIVS) has gained popularity in recent years. A 2005 survey conducted by the American Society of Retinal Surgeons showed that 31% of vitreoretinal surgeons prefer sutureless MIVS to conventional 20-gauge vitrectomy surgery. This increase in popularity is considered by some vitreoretinal surgeons to be a “revolution similar to that of the transition from extracapsular cataract extraction to phacoemulsification.”¹

CASE REPORT

In this article, we describe an unusual instance of 23-gauge instrument malfunction, previously unreported. A 64-year old Asian-Indian man was scheduled for vitrectomy for diabetic tractional retinal detachment with proliferative retinopathy. During the insertion of the trocar, displacing the conjunctiva first followed by a beveled scleral entry, we found that the shaft of the cannula was firmly engaged with the trocar and was retained as a sleeve around it after making the sclerotomy.

While withdrawing the trocar, the cannula also came out. The shaft of the cannula was also dislodged from the sclerotomy adaptor. Figure 1 shows the shaft of the cannula firmly engaged with the trocar and retained as a sleeve around it. Subsequently, it became

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Figure 1. The shaft of the cannula was firmly engaged with the trocar (left arrow) and was retained as a sleeve around it. Subsequently, it became dislodged from the sclerotomy adaptor (right arrow).

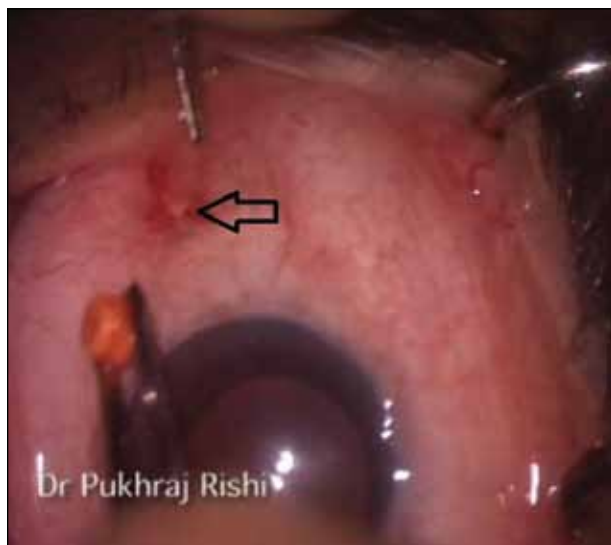


Figure 2. The site of entry was abandoned (arrow).

dislodged from the sclerotomy adaptor. We abandoned this site of entry (Figure 2), and it was found to be self-sealed. The cannula was removed from the trocar using Alabama University utility forceps, as seen in Figure 3. A new sclerotomy was made at a different site. The surgery proceeded uneventfully. We did not experience any intraoperative hypotony or wound leak from the abandoned sclerotomy site. To the best of our knowledge, this unforeseen complication has not been reported before.

DISCUSSION

Although 23-gauge MIVS complications have been frequently reported, most pertain to postoperative



Figure 3. The cannula was removed from the trocar using Alabama University utility forceps.

Although 23-gauge MIVS complications have been frequently reported, most pertain to postoperative wound leaks and hypotony.

wound leaks and hypotony.¹⁻⁴ Twenty-three-gauge instrument malfunction has seldom been reported. There has, however, been a report of intraoperative breakage of a 25-gauge microvitrectomy (MVR) probe.⁵ Inoue et al reported a case in which the vitrectomy probe was firmly adherent to the 25-gauge cannula and was subsequently damaged on attempted retrieval.⁵ The surgeon was able to remove the broken fragment of the MVR cutter.

In our case, the cannula shaft was dislodged from the polyamide sclerotomy adaptor. However, unlike in Inoue et al's report, we were able to easily dismantle the cannula from the trocar. In conclusion, one must bear in mind the possibility of such complications with MIVS instrumentation. ■

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