Hysteroscopic Morcellator: A new technique in managing submucosal fibroids

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Introduction
Traditionally, conventional resectoscope and loop resection is a common surgical management of menorrhagia caused by submucosal fibroid. Recently, hysteroscopic morcellators (e.g. MYOSURE) are increasingly used as an alternative. Reports suggested reduction in uterine perforation, thermal bowel injury and operative time when compared to conventional methods (1,2,3). Our unit is one of the first to use the hysteroscopic morcellating device (MyoSure) in Hong Kong.

Objectives
This preliminary study compares its safety, satisfaction and efficiency with the conventional loop resection method.

Methodology
A retrospective review of all hysteroscopic resection of submucosal fibroids performed between 2011 and 2014 at our hospital was performed. Both techniques were included. The technicalities and patient’s satisfaction were compared between the two. Satisfaction is considered if periods are reduced at 3 months follow-up. It is statistically significant if p<0.05 using independant T test (95% confidence interval). Between 2011 and 2014, 12 patients underwent monopolar conventional loop resection while 13 patients underwent hysteroscopic morcellation (MyoSure). There was no difference in average fibroid size amongst the two techniques (3.25cm vs.3.5cm, p=0.876). Average operative time is significantly lower for the morcellation technique (36.6 minutes vs. 53.6 minutes, p<0.01). Average total fluid deficit however is significantly higher for the morcellation technique (1005ml vs. 225ml p=0.017). There was one complication with the loop resection technique but none with the morcellation technique. At 3 months follow-up, there was no significant difference in patient satisfaction (84.6% vs 70.7% p=0.606).
**Result**

This review suggests hysteroscopic morcellation as an ideal alternative to conventional resectoscope and loop resection of submucosal fibroids. Despite no difference in average fibroid size, there was similar patient satisfaction and complication rates at 3 months follow-up but a significant lower operative time. This will benefits both the patient (e.g. reduced time under anaesthetics) and the hospital (e.g. reduce operation waiting time). Despite its significant higher fluid deficit with the morcellation technique, saline is used as distending medium. Compare to glycine, saline as distention medium is less likely to develop electrolyte imbalance, cardiac collapse and death in cases of excess fluid absorption(4). In addition, fluid absorption in all our cases was within the maximum limit of 2500ml of saline set by AAGL and no reported case of complications associated with excess fluid absorption (5). Therefore, despite the significant fluid deficit, the morcellation procedure remains to be more beneficial (6).