International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Extending Horizons in Obstetrics and Gynaecology: Use of Ventouse in Gynaecological Surgeries

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Abstract

The ventouse, long celebrated for its role in obstetrics is now emerging as a competent assisting tool in complex gynaecological surgeries. Its controlled suction and traction mechanics redefines surgical finesse and safety. A prospective pilot observational study was conducted at our tertiary care centre of North East India at 40 patients for a duration of 6 months. Ventouse-assisted traction was used in gynaecological procedures including myomectomy, hysterectomy, large cystic adnexal masses/tumours and deep-seated pelvic masses. Key parameters observed were intraoperative blood loss, tissue handling quality ,associated visceral and vascular injuries and surgeon's ease.

This study demonstrates that ventouse is a safe, innovative and underutilised adjunct in gynaecological surgery representing a paradigm shift towards less traumatic precision. Its careful application can extend the horizons of obstetrics practice from delivery assistance to operative innovation.

Introduction

Surgical removal of large ovarian tumors poses significant technical challenges , particularly during minimally invasive and fertility preserving procedures. Limited surgical space, risk of tumor rupture , spillage of cyst contents, and delivering bulky masses through small incisions necessitate innovative , atraumatic extraction techniques.

The ventouse, long celebrated for its role in obstetrics is now emerging as a competent assisting tool in complex gynaecological surgeries. its controlled suction and traction mechanics redefines surgical finesse and safety.

Indications

- Large adnexal masses with smooth surface
- Large benign uterine fibroids
- Peritoneal inclusion cysts
- Deep pelvic or impacted tumors
- Uterine exteriorization in difficult cases

Materials and method

A prospective pilot observational study was conducted at our tertiary care centre at North East India at 40 patients for a duration of 6 months. Ventouse-assisted traction was used in gynaecological procedures including myomectomy, hysterectomy, large cystic adnexal masses/tumours, deep-seated pelvic masses.

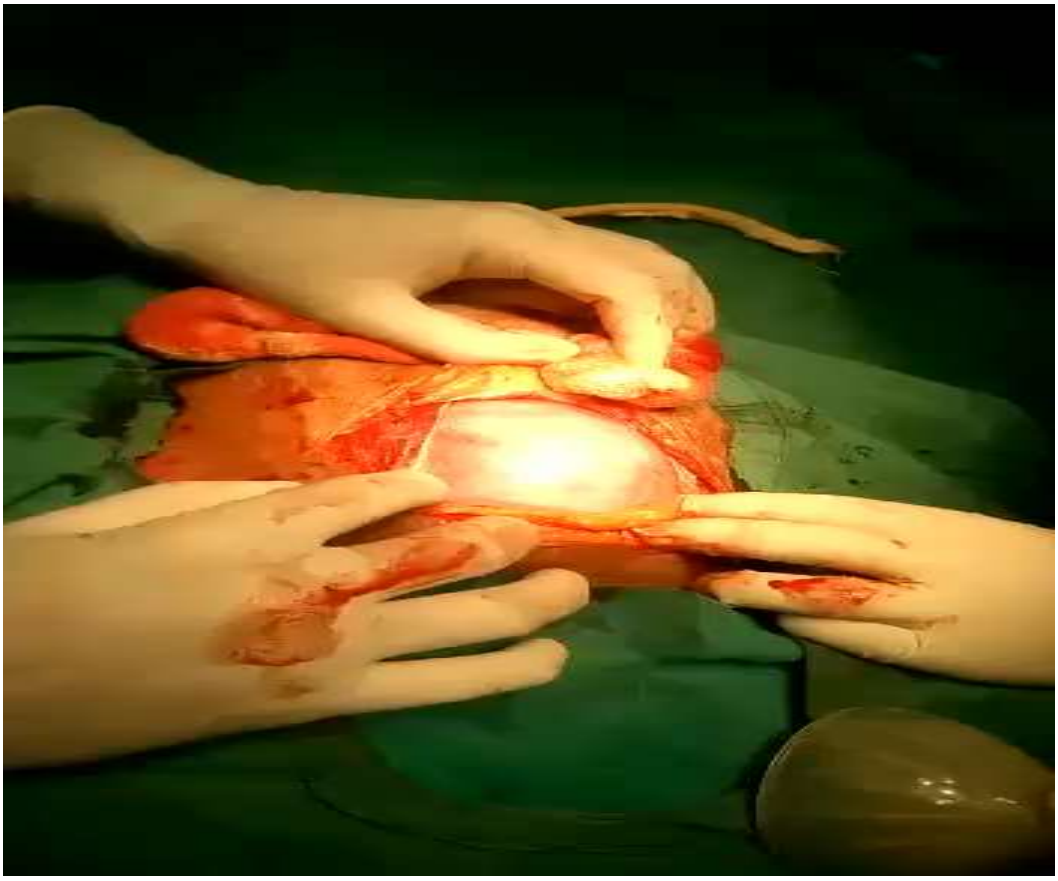
Key parameters observed were intraoperative blood loss, tissue handling quality ,associated visceral and vascular injuries and surgeon's ease.

Case description (as an example)

A 42 years old P1L1 presented with abdominal distension and pelvic discomfort. USG/CECT showing 14 x 12 cm thin walled left ovarian cyst, likely benign in origin. Tumor markers are within normal limits. Difficulty encountered in delivering the large cyst through mini-laparotomy incision. Obstetric ventouse cup applied to smooth surface of the cyst. Negative pressure gradually increased to achieve secure adhesion. Controlled traction applied along the axis of incision.

Outcomes

- Cyst delivered intact without rupture or spillage
- Minimal manipulation of ovarian tissue
- Reduced efforts and blood loss
- Uneventful postoperative recovery



Results

- Out of 40 large ovarian tumors , 38 were successfully extracted using ventouse without any rupture/spillage and without extending the skin incision.
- Largest tumor that can be removed is upto the size of 36 weeks of gravid uterus.

Advantages:

- Decreased intraoperative blood loss thus improving visual clarity
- No undue trauma or surface tearing observed, maintaining tissue integrity
- No major visceral or vascular injuries attributable to ventouse use
- Avoided use of additional traction instruments
- No intra-peritoneal spillage seen
- Surgeons reported superior control, ergonomic ease and less fatiguability in difficult dissections

Limitations:

- Dependence on equipment- availability and sterilization logistics may restrict use in low resource settings
- Not suitable for friable tissues where excessive suction could risk surface trauma.

Conclusion

The ventouse, when judiciously adapted from obstetric practice, represents a valuable adjunct in gynecological surgery for the extraction of large benign ovarian tumors. Its ability to provide controlled, atraumatic traction facilitates safe tumor delivery, minimizes tissue handling, and preserves the principles of minimally invasive surgery. With appropriate patient selection and surgical expertise, ventouse-assisted extraction enhances operative efficiency while reducing morbidity, thereby broadening the surgeon's armamentarium for managing challenging ovarian masses.

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