



## Vault Prolapse

Every gynecologist comes across patients with vault prolapse following hysterectomy. Although it is not a common condition occurring only in about 1% of hysterectomies, Cruickshank <sup>1</sup> considers the incidence to be much higher. The incidence is definitely on the rise, thanks to the extended longevity of women. In fact Barrington and Edwards <sup>2</sup> state that the incidence after vaginal hysterectomy seems to have increased five fold. More elderly women now desire active sexual life and seek remedy for their vault prolapse. It is widely believed that vault prolapse is more common after vaginal hysterectomy than after abdominal hysterectomy. But Morely and DeLancey <sup>3</sup> state that vault prolapse results equally often after vaginal or abdominal hysterectomy. When it occurs soon after hysterectomy we must blame surgical technique - either wrongly chosen or faultily executed. Not repairing the enterocele and/or not giving ligamentous support to the vault are the main reasons leading to vault prolapse following soon after a hysterectomy. Excluding this situation, vault prolapse generally occurs about 8-10 years after hysterectomy. This is due to age related weakening of the tissues supporting the vagina, menopausal tissue atrophy, increased intra-abdominal pressure due to chronic cough from a pulmonary disorder or due to obstinate constipation, obesity, smoking etc.. It may incidentally be stated that routine episiotomy, epidural analgesia for painless delivery and resorting to operative vaginal deliveries do not decrease the incidence of genital prolapse.

It is obvious that vault prolapse needs surgical treatment. Only those in whom surgery is contraindicated should be offered ring pessaries. In view of the patient's advancing age and possible co-existing medical disorders she must be rendered medically fit for anesthesia and surgery. Apart from controlling diseases like diabetes, hypertension, lung infection etc. reducing smoking and obesity would be very helpful as would the building up of the vaginal epithelium by estrogen cream. Utero-sacral and cardinal ligaments are often very weak, and sometimes not even identifiable. The traditional vaginal repair of the vault prolapse hence involves over enthusiastic anterior and posterior colporrhaphy and aggressive perineorrhaphy often resulting in much narrowing of the vaginal canal and the introitus. It is not surprising that dyspareunia and aparunia is the end result in about 20%.

Today we have better surgical options. Fixing the vaginal vault to the sacrospinous ligament is a safe, simple and effective procedure. It is easy to learn but needs to be meticulously executed to avoid complications. Posterior vaginal wall needs to be incised vertically all the way from the introitus to the vault and rectovaginal space carefully dissected up to the ischial spine by blunt and occasional sharp dissection pushing the rectum medially. Careful dissection and some experience would avoid bleeding from rectal and sacral vessels. Patients with previous rectal surgery or pelvic abscess in the past should not be offered this surgery. Special ligature carriers devised by Miya and by Descham are not indispensable and the operation can be perfectly done with a long needle holder as shown by Rajamaheswari and Gunasekharan <sup>4</sup> who describe the surgical steps in details. It is important to take due care to avoid injury to the pudendal vessels and the nerve. The vault should be fixed to the sacrospinous ligament, and not suspended from it. A suture bridge between the vault and the ligament must be avoided. Repair of enterocele, cystocele, rectocele, perineal laxity, rectal prolapse and stress urinary incontinence should be combined with this operation as and when necessary. In fact 2/3<sup>rd</sup>s of the patients need one or more of these additional procedures. It is not necessary to fix the vault on both the sides. Unilateral vault fixation is all that is required and although it alters the axis of the vagina this does not interfere with sexual function. Sacrospinous vault fixation per se needs only 15-20 minutes of additional surgical time. Average hospital stay is hardly 4 days. Sacrospinous vault fixation gives 90-95% success rate. In fact the procedure can be electively undertaken during primary vaginal hysterectomy to prevent future vault prolapse in suitable patients.

Infracoccygeal sacropepy with a tension free tape has been reported on day care basis <sup>5,6</sup>. It has a failure rate of 6%. If a woman with vault prolapse needs laparotomy for any other reason the vault can be suspended from either the hollow of the sacrum <sup>7</sup> or the sacral promontary <sup>8</sup>. Either a synthetic mesh (merselene or Teflon) or strips of rectus sheath can be employed for suspending the vault but they must be properly peritonised to avoid the possibility of intestinal obstruction in future. Repair of cystocele and/or rectocele when required

should be carried out before the abdominal procedure. Abdominal surgery is more invasive than vaginal, takes longer time and involves greater blood loss though its success rate is comparable to that of the vaginal procedure. However, a recent review by Nygaard et al <sup>9</sup> shows that the success rate ranges from 78 to 100%. One should always opt for vaginal procedure unless a laparotomy is otherwise warranted.

An average gynecologist in India would find sacrocolpopexy a very major and extensive procedure requiring special skill. Fortunately, we in our country, are used to doing cervicopexy for selected cases of uterine prolapse. Similar procedure using strips of rectus sheath in situ or a mercelene tape to suspend vaginal vault gives excellent results. I and my colleagues are very happy with this method of treating vault prolapse. This is a much simpler and far less invasive procedure than sacrocolpopexy and should be the first option for vault prolapse whenever laparotomy is indicated for some other reasons. I would like to designate this operation as *abdominal wall vault suspension*.

It is possible to do sacrocolpopexy laparoscopically as shown by Cosson et al <sup>10</sup>. But this takes much longer time, carries greater complication rate and needs further assessment.

Lastly, for patients who do not desire sexual function, colpocleisis or total colpocleisis is an option. But it should be reserved as a last resort for selected patients in whom other procedures have failed or considered inappropriate.

## References

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