

Vesicovaginal Fistula (VVF) - A Prospective Analysis

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Vesico vaginal fistula disease is as old as antiquity, VVF has a profound effect on the patient's emotional well being. The main object of our study was to find out the etiology, success of repair, in our set up. A total of 26 patients were included in our study, with the mean age of 30 years, all were almost illiterate (88.56%), Multiparous (57.69%), with the height more than 151cm (53.84%). The cause of injury noted for birth trauma was, Obstructed labor (42.30%). The time interval for the presentation of the patient for the treatment in 61.54% was 2-10 month. The success rate noted was 92.30%.

Key word; Vesico vaginal fistula, age, height, birth trauma, success.

The obstetrical Vaginal Fistula develops as a result of traumatic necrosis to the birth canal. The bladder trigone and the vesicourethral junction are the commonest site to be involved in the obstetric fistula. The contracted pelvis which may be a result of incomplete development in teenaged or stunted growth due to chronic disease of malnutrition has been accounted a major cause of obstetric fistula in many countries¹.

Vesico Vaginal fistula dates back to, 2050BC, when Derry discovered a large VVF in the mummified body of Queen Henhenit. However first clear evidence was reported nearly. 1550 BC, in the Ebers papyrus from Egypt. Also mentioned by the Avicenna in his book, "Alkanoun", 900 AD, when he correlate the pregnancy in young age and difficult labor with the result of fistulous communications. "To meet one of these mothers is to be profoundly moved. Morning the stillbirth of their only baby, incontinent of the urine, ashamed of their offensiveness often spurned by their husband, homeless, they endure, they exist with out friends, with out hope. They bear their sorrow in silent shame. Their miseries are untreated, utterly lonely and lifelong².

The exact incidence of the VVF is not known, it is more common in Africa, Asia, , In Pakistan the incidence of the Vesico Vaginal fistula is reported to be 0.36 to 0.8 in Gynae Unit³.

Material and method

The prospective study was conducted in the Gynae Ward of the Jinnah hospital Lahore, from November 2000 to December 2003. Total 26 cases were included in the study. On admission history, physical examination, Laboratory investigations were carried out. All patients were investigated for urinary tract infection. Patient urine was sent for Culture and sensitivity test, ultrasound, plain X ray abdomen, and IVU, with oblique X ray pelvis were carried out. The patient was put on the List, Under General Anesthesia, Cystoscopy with the help of urologist was carried out, to conform the diagnosis, and to see the site, size, no of fistula, and to decide the methodology used. The average size of the fistula, varies between 1-5 cm. Antibiotic used was amino glycoside, in majority of the

cases, until the culture sensitivity report indicates otherwise.

All fistulae ere repaired vaginally, using Lithotomy position, by split flap technique, in two layers with out any tension on the suture line by 3/0 Vicryl, closing the bladder, and vagina separately. In two fistulas, pouch of Douglas had to be opened, and in other 04 fistulae due to the close proximity of the cervix, dissection and separation of the tissue was difficult and in closure of vaginal wall cervical tissue was also included.

Continuous bladder drainage per urethra, in to a sterile bag, for at least, 14 days after surgical repair, to keep the suture line dry and allow healing. And patient catheter was usually removed on 14th post operative day and discharged on the same day, only in 02 cases the healing was not successful, and leakage started on 05th post operative day, the patients were advised to come after 04 weeks for follow up. Cystitis, with associated frequency, and dysurea, was common complaint, for which urine culture and sensitivity was done, and appropriate antibiotic was advised. In case patient condition was satisfactory, she was advised to come after 06 month, for follow up. In case of unsuccessful repair, continuous drainage was ensured in the hope that residual defect may heal spontaneously, residual fistula was not operated upon until at least 03 month has passed. At the end of study, the data was collected and the results were compiled.

Results

Fig. Age distribution of patients

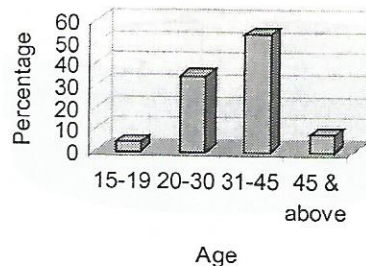


Fig. Distribution of women according to trauma

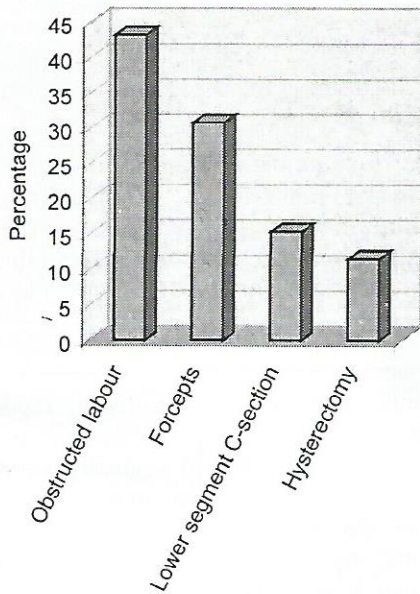


Fig. Distribution of women according to height

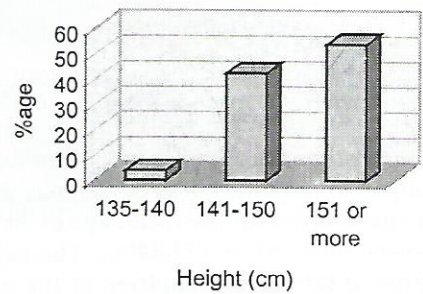


Fig. Distribution according to time interval

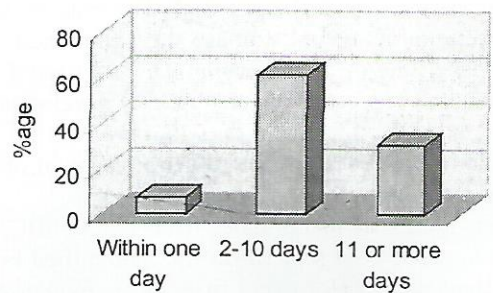


Fig. Education of patients

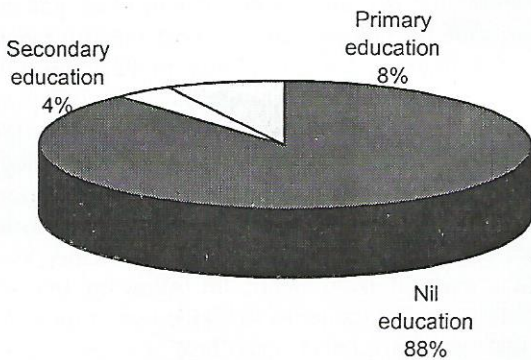
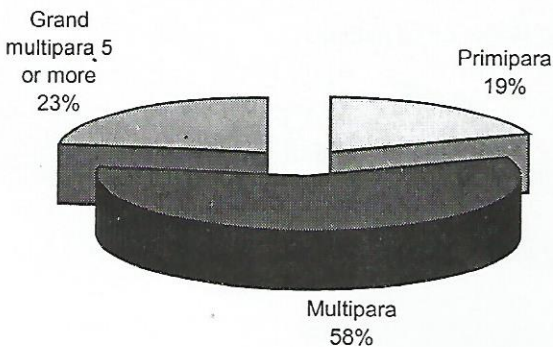


Fig. Parity of women with VVF



Discussion

Successful repair depends upon Site, Size, accessibility, amount of tissue fibrosis, tissue available for repair, preoperative preparation of the patient, and care during operation, good assistance, skill and competence of surgeon, meticulous technique with proper suture material and most important is postoperative care. In Pakistan the incidence of Obstetric fistula varies from 0.36% to 0.8% of the admission in gynae unit³. In the present study, the incidence of obstetrics fistula in relation to admission in gynae ward is 0.46%.

The average age reported by Ahmed is 32.2 years³, while in study conducted in Bangladesh by Begum the average age group is 21.25 years. Among whom, 48% of women developing VVF were below 20 year⁴, the reason is that Bangladesh has the lowest mean age of marriage in the world. Jafery described the mean age for developing VVF is 30 year, which correlates with our study⁵. In another study conducted in developing country, Morocco, the average age for presentation of the VVF is 33 years¹⁴.

Parity of the women play significant role in the development of obstetric complication leading to VVF. In our study, most were multiparous, 57.69%, while prime and grand multipara were 20.51% each, our finding correlate with Natu, who described 60% of VVF in multipara⁶. This is explained by the fact of maternal malnutrition along with rapid child bearing and almost continued lactation result in bone demineralization and

ultimately results in osteomalacia which is major cause of secondary CPD leading to VVF³.

Height of woman is related to the size of the pelvis and height of less than 150cm is considered to be dangerous as the pelvis is small and there are more chance of obstructed labour and hence VVF. In our study most 53.84% were having height of more than 151cm, thus reflecting the bad obstetric care on the part of TBAs in rural area. and even by doctors, while the women of height less than 150cm constituted 48.71%. Our study correlate with the findings of Natu S, where women of height less than 151 cm, were 53.0%⁶ and to Shah, where this was 50%¹.

Studying trauma, leading to VVF, 42.30% of women develop due to obstructed labor, and 30.77% develop due to forceps assisted delivery. While 15.39% develop due to LSCS and 11.54% having hysterectomy, these findings are entirely in contrast to the causation of VVF in developed countries, where these causes have been entirely eliminated successfully. In these countries, malignancies of the genital tract and radiotherapy lead to VVF^{7,8}. Farooqi FA elaborated most common cause of VVF, was difficult labour 53.3%. Among whom, 36.7% of the patients had VVF as a result of Caesarean section, and 10% after abdominal hysterectomy⁹. In study conducted in Addis Ababa Fistula hospital more than 97% had VVF due to obstetric etiology. Eight cases were the result of the coital injury¹⁰.

The success rate in our study is 92.30%, in first attempt, We have used the transvaginal approach in all cases, while Hadley elaborated transvesical as the best approach, and achieved success rate of more than 90%¹⁵. The success we achieved was due to good preoperative evaluation, including eradication of infection, treatment of anemia, and other debilitating disease, skill and competence of the surgeons, use of synthetic suture, and good post operative care. Lawson states that 75% success rate should be achieved in first attempt and further 15% at the second attempt¹¹, in another study, Ayhan and Tuncer, demonstrated, that success rate in primary VVF repair, was 91.5%, which is quite close to our study¹². Mondet from France, demonstrated, success rate for simple and complex

fistula 85%¹³, while in Morocco, Modouni established success rate of 100% in vesicovaginal Fistula¹⁴.

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