



"FOUR CASES OF ACQUIRED TOTAL VULVAR SYNECHIAE AT DIFFERENT AGE GROUPS "

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ABSTRACT

In this paper I am presenting my personal experiences in the management of Four cases of complete Labial adhesions due to various etiological factors and at different age groups (infancy,adolescence,adult and post menopausal) with varied symptomatology. All these four patients had different types of problems and they were all referred to me after going through different institutions and different medical specialists and after having some preliminary treatment. I could properly assess each patient, planned, and performed the necessary surgical procedure and all the patients are totally relieved of their problems and completely satisfied. In all these four patients,necessary and definitive treatment was delayed by different physicians,thus prolonging the needless suffering of the patients. Since these types of cases are seen rarely I want to share my experiences with all our professional colleagues and trainees,so that when they see such cases in future,it will be easy for them to manage. I had not seen any publication of this kind,all cases together in any other journal so far in the available literature and that is why I wanted to publish my experience in your esteemed journal for the benefit of our fraternity.

KEYWORDS : Total vulvar synechiae-labial adhesions-vulvar lichen planus-post traumatic labial adhesions-postmenopausal labial adhesions.

TABLE-ONE --- CASES AT GLANCE

S. N O.	AGE OF THE PATIENT	DURATION OF SUFFERING	CAUSE OF LABIAL ADHESION	TREATMENT GIVEN
1.	18 YRS (ADOLESCENT)	SINCE 12 YRS OF AGE(2014)	VULVAR LICHEN PLANUS	SURGICAL CORRECTION HAPPY MARRIEDLIFE.
2.	52 YRS (POSTMENOPAUSAL)	LAST 4 YEARS(2018) DYSURIA	POSTMENO PAUSAL HYPOESTROGENISM	SURGICAL CORRECTION AND LOCAL ESTROGEN GEL APPLICATION REGULARLY
3.	20 MONTHS (INFANCY)	LAST 6 MONTHS DYSURIA	LACK OF LOCAL CARE HYPOESTROGENISM	SURGICAL CORRECTION APPLICATION OF ESTROGEN GEL FOR SHORT PERIOD
4.	28 YRS (ADULT)	SINCE THE AGE OF 7 YRS.	CHILDHOOD PERINEAL INJURY- SUTURED.	SURGICAL CORRECTION 2 MONTHS AFTER SURGERY SHE CONCEIVED& 2 MONTHS PREGNANT.

CASE REPORTS:

CASE NO.1

Female aged 18 yrs attended OB&GY department,NRI MEDICAL COLLEGE HOSPITAL and was referred to plastic surgery consultation.

She attained menarchy at the age of 15 yrs .Having normal menstrual cycles.She developed gradual dysuria over the last 3 months and is able to empty urine only through a small opening in the centre of the midline of perineum.No urethral opening is seen.During menstrual periods also,she empties blood through the same opening in the central position of the midline of the perineum.other secondary sexual characters are female.On interrogation she gave history of taking some medication orally and local ointment for purplish cutaneous papular lesions over upper and lower limbs.She was also having erosive lesion in the oral cavity in the mucosa and gum with gingivitis.Tissue biopsy of oral lesions was done and reported as Lichen Planus(Erosive and hypertrophied type)

She was diagnosed as suffering from "Total Vulvar Synechia" due to lichen planus and was admitted on 16-2-2012 for surgical correction.Surgery was performed under spinal analgesia on 18-2-2012.

PHOTOGRAPH: 1



FIGURE 1-ALL PREOPERATIVE(A,B,C,D)

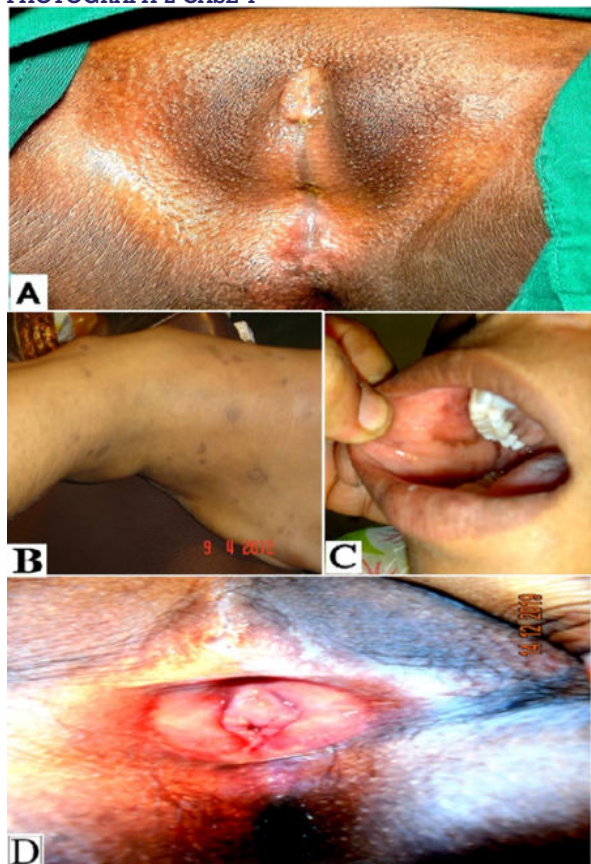
A.CASE1 Female aged 17 yrs(Adolescent)

B.CASE2 Female aged 52yrs(postmenopausal)

C.CASE3 Female child aged 20 months(childhood)

D.CASE4 Female aged 28 yrs(Adult)

The synechia was opened in the midline.After identifying the urethra which was normal a no.16 foleys catheter was passed. And the rest of the adhesions were released without any difficulty. Vagina was found to be normal.Labia majus are normally developed but labium minor muscles are underdeveloped.Skin mucosa sutures applied with 4/0 vicryl and Foleys catheter was kept for 48 hrs.Healed completely without any complication and the patient was discharged on 23-2-2012 with advise to continue treatment for lichen planus and review once in 4 weeks.She was studying Triple IT.Advised to continue the studies without any break.She came for followup during 2019 after 7 yrs postop and is completely normal.She completed her triple IT, got married and is employed.Enquiries on 12-5-2021,9 yrs postop,she informed she is completely normal,happy with family life,working in IT company and planning to immigrate to Canada shortly after the corona problems.She is very grateful for the Treatment given to her.

PHOTOGRAPH-2-CASE-1**FIGURE 2****CASE - 1 . A. Preoperative,B.Cutaneous lesions leg****C.Lesions in the oral cavity,D.Postop-7yrs****CASE NO.-2:**

Female ,52 yrs.,is unmarried,and is having postpoliodeformity of left lower limb since childhood.She attained menopause 3 yrs back.Her previous menstrual history was uneventful.For the last 3 yrs she has dysuria and difficulty in passing urine.in jan 2017.She consulted gynecologist who suspected calculous disease and got the U/s done which was negative for stones.She advised drugs for urinary infection without any benefit.There was increased difficulty in passing urine and she consulted another gynecologist at Aswaraopet who was earlier postgraduate at ASRAM.She advised to consult at ASRAM hospital.

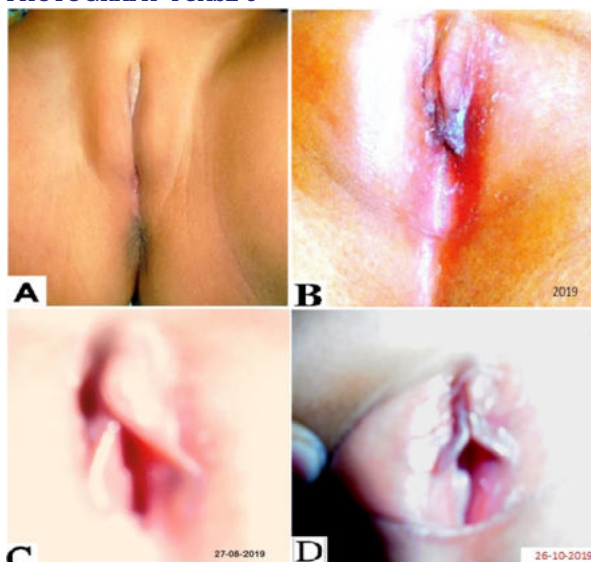
She came and was admitted on 31-12-18 at Asram hospital.She is having total vulvar synechiae.Small opening in the center of the fusion through which she was passing urine dropwise with difficulty and for long time,particularly so because of post poliodeformity of lower limb.She was admitted on 31/12/18 and was operated on 5/1/19 under spinal analgesia.complete anatomical restoration of perineal region was done.labium majus well developed.labium minor is not developed on either side.Vaginal cavity is normal,so also uterus and cervix.Skin mucosal suture was done with 4/0 vicryl sutures.She recovered well completely and relieved of her problems.She was advised to apply estrogen gel locally for few weeks to prevent recurrence. Because of covid problems,Telephonic enquires revealed that she is doing completely normal without any problems during 12th may 2021.

PHOTOGRAPH-3-CASE-2**FIGURE 3.****Case2. A.Pre op,B.52 yrs post menopausal post polio****C.Post op after 3weeks****CASE NO.-3**

Baby Likhitha Fch/19 months was referred from Khammam due to difficulty in passing urine and agglutination of Labia.Parents brought the child for consultation at the advise of pediatricians and gynecologist at Khammam.

Complete vulvar agglutination is present.Urethral opening is not visible.Passing urine with difficulty dropwise.

She was admitted in plastic surgery unit on 29/4/2019 and was operated under short general anesthesia on 30/4/2019.complete normal anatomy was restored and urethral opening is normal.She was discharged after 2 days of observation.Advised regular cleaning and also apply twice a day estrogen gel locally to prevent any recurrence. Child was brought for checkup after 3 weeks and is doing well without any problems and normal development of external genitalia and labia.

PHOTOGRAPH-4 CASE-3**FIGURE 4****CASE-3.A & B. Preoperative****C.After surgical correction,D.6 months postop**

CASE NO.4**CH. LAXMIKRANTHI F/26 YRS**

She was brought to plastic surgery consultation by a dermatologist.

History of fall from an auto at the age of 7 yrs. There was perineal injury and wound was sutured by applying nearly 17 sutures. wound healed well. She attained menarchy at the age of 12 yrs. There is complete labial fusion and only small opening is present in the midline, central region, through which she is passing urine and also blood at the time of menstrual periods. All other secondary sexual characters are normal for female. She was married at the age of 18 yrs. According to the patient they had first night after marriage and attempted for sexual intercourse. There is severe Dyspareunia. They consulted a gynecologist. She advised Xylocaine Jelly to be applied before sexual intercourse. They attempted following the advise for 3 to 4 days. even though there is continued dyspareunia. She conceived and became pregnant. She was taking antenatal care. Because of the perineal condition she was referred to Rangaraya medical college hospital, Kakinada for delivery where they performed LSCS and a live female child was born. Even though she went to several gynecologists and urologists she was referred to higher centers. She was brought to ASRAM hospital by a dermatologist who is known to them. It was diagnosed as total vulval synechiae due childhood injury perineum and advised admission for surgical correction. She was admitted on 17-12-2000 in plastic surgery unit and was operated on 18-12-2000 under spinal analgesia.

Labia are completely separated, urethra isolated and exposed and complete separation and exposure of vagina was performed. Vagina is normal and so also the uterus and cervix. The skin, mucosal sutures were applied with 4/0 vicryl and was discharged after observation for 5 days.

Post operatively following up she is completely normal, recovered well, relieved of her problems. At one stage few years back she was so much depressed and even wanted to commit suicide because of urinary problem and lack of sexual activity.

She is so grateful after surgery and feels that she got second lease of life after surgery and she as well as family members are so grateful for the doctors and the hospital for the service done with nominal expenditure which they never expected.

PHOTOGRAPH-5-CASE-4**FIGURE 5**

CASE-4. A. Preoperative, B. After release of labial adhesion

C. 7 months postoperative, D. Postop profile of patient

DISCUSSION:**VARIOUS COMMON CAUSES OF VULVAR SYNECHIAE: [1,2,3]**

Several factors are responsible for total vulvar synechiae. This is more common in children and commonly produce dysuria. Regular local care and hygiene will prevent this and most often can be treated without surgery. The following are the factors often observed in complete vulvar synechiae at different age groups.

- 1) Oestrogen deficiency associated with atrophic vaginitis
- 2) Vulval lichen sclerosus
- 3) Erosive lichen planus
- 4) Mucous membrane pemphigoid
- 5) Behçet syndrome
- 6) Stevens-Johnson syndrome / toxic epidermal necrolysis
- 7) Vulval cancer
- 8) Complications of normal childbirth
- 9) Female circumcision operation (which is illegal in many countries)
- 9) Complications from vulvectomy
- 10) Perineal injury, burns or infections.
- 11) Sexual abuse.

• LABIAL FUSION IN CHILDREN: [4,5,6,7]

Labial fusion is fairly common affecting the girls around the age of 2 years and most commonly affecting girls around 3 to 6 months and the incidence is 2% of young girls.

There are several factors causing this labial adhesion like inflammation and infection from the diapers and lack of local care, produces local inflammation, itching and scarring and adhesions.

In some of the babies low levels of estrogen will effect the skin and labial adhesions can occur. This can be prevented by local application of hydrocortisone ointment. Some girls with labial adhesions will have dysuria and urinary tract infection. If the child is having adhesions they can be generally quite well released with the baby under sleep under short general anesthesia. Effective precautions are to be taken for preventing the recurrence of labial adhesions. As the child grows all the hormonal activities will improve and the child will have no further problems.

VULVAR LICHEN PLANUS [8,9,10,11,12]

In the girls in reproductive age, vulvar lichen planus is one of the lesions to be considered for labial adhesion. It is a hereditary, auto immune disorder characterized by lesions in the skin of the extremities, ulceration in the oral mucosa and gingival lesions. Diagnosis can be made by clinical appearance, but is always safe to have the pathological confirmation with tissue biopsy.

Topical corticosteroid treatment is the gold standard of treatment. But in very thick and troublesome fusion as occurred in our case, surgical treatment is mandatory and further steps to be taken to prevent the recurrence of the disease and stenosis of vagina and vulva. There is no definite proof of increased incidence of carcinoma of vulva in these patients. [13,14]

OTHER CAUSES OF RARE OCCURRENCE IN REPRODUCTIVE AGE: [15,16,17]

In cases where the etiological factors are like post traumatic adhesion, postburns adhesion, post infective adhesion and also because of labial injury due to normal delivery, sexual abuse and dysfunction etc depending on the anatomical deformity and the suffering of the patient, surgical correction has to be performed at the earliest time possible to minimize the suffering of the patient.

IN POSTMENOPAUSAL WOMEN [18]

In post menopausal women mostly the labial synechiae is due to hypoestrogenism and atrophy of the vaginal mucous membrane in addition to some other factors like urinary tract infection, trauma etc.. After correcting the anatomical deformities and restoration of normal urinary flow, local

application of hydrocortisone ointment or estrogen gel may be useful to prevent future recurrence.

CONCLUSIONS:

All the four cases at different age groups and different etiological factors were successfully treated with minimal financial commitment and short hospital stay. All the patients and their families were extremely happy at the outcomes of surgical treatment, even though they are rare and unusual deformities. This paper is unique in the literature pertaining to this subject since I reported four patients of different age groups with complete and total vulvar synechiae of different etiological factors with excellent outcomes and patient satisfaction.

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