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Labial fusions and age periods

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ABSTRACT

Aims: Although labial fusion disease is usually seen in infancy, it can also be seen in other age groups. Our study aimed to evaluate whether labial fusion disease creates significant clinical problems across age periods by considering childhood periods.

Methods: Following ethics committee approval, the files of patients who came to the Pediatric Surgery outpatient clinic with complaints of labial fusion between 2017 and 2023 were retrospectively examined. These patients were divided into groups related to their childhood periods and the causative cause, other accompanying problems, treatment method, number of recurrences of labial fusion, and reasons for recurrence. These patients were evaluated by grouping them as 0-2 months, 2 months-2 years, 2 years-6 years, and over six years of age. Additionally, the results obtained were evaluated in the light of the literature.

Results: Of the 94 patients with labial fusion complaints, one was two months old, 51 were 2 months-2 years old, 34 were 2-6 years old, and eight were over six years old. A hygiene problem was identified in only 1 of these patients. In others, the reason for the complaint needed to be clarified. One patient had urinary complaints, and 4 had constipation. Fusion excision was performed as a treatment under outpatient clinic conditions. Recurrence occurred in 16 patients. It recurred once in 13 patients and twice in three patients. Estrogen-containing cream was used in 10 of the relapsed patients. Relapses were performed for recurrent patients under outpatient clinic conditions.

Conclusion: Labial fusion is rarely seen in the neonatal period. This situation may be considered pleasing, but it may also cause people to think that perineal examinations were not performed well. We have implemented practices that can be said to be directly proportional to the literature for infants and school-age children. In patients over the age of six, no apparent cause could be identified. In treatment, only one patient required a surgical procedure, such as a straightforward fusion opening. The presence of additional complaints in some patients rose whether constipation, especially constipation, affected the formation of labial fusion, although its detection was proportionally low.

Keywords: Labial fusion, child, prepuberty

INTRODUCTION

Labial fusion is a common problem in infancy and prepubertal periods.[1,2] The most common age range is between 3 months and six years.[2-4] The probability of having a child older than this age range has been expressed as 22% in some studies.[4,5] In one study, it was stated that it was between 0.6-5% in prepubertal women.[6,7] Rarely, vulvovaginitis, urination dysfunctions, pain, post-micturition dribble incontinence, and urinary retention may be encountered.[1,3,5]

Suppose the development of labial fusion is not due to congenital causes. In that case, it may be caused by reasons such as chronic inflammation, vulvar infection, poor hygiene, vulvar trauma or surgery, sexual abuse, and perineal damage at birth.[1,3,4,6] Estrogen regulation problems or estrogen deficiency are expressed as the causative factor.[2,8] No cause can be found in some of them.[1] It is also stated that the continuity of the mentioned reasons may also cause recurrence.[6,7] The success rate after treatment with estrogen creams in patients with recurrence is expressed as 35%.[7]

It is stated that if labial fusion is not opened in children who have reached puberty, spontaneous recovery may occur with estrogen dominance.[7] For this reason, some studies suggest that prepubertal children can only be treated if they show symptoms.[7]

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Three main methods are used to treat labial fusions. Treatment uses topical cream, manual opening, or surgical methods. The first two methods have a 55% and 33% chance of recurrence, respectively. This possibility can be expressed as low in those requiring surgical procedures.[4]

In our study, we aimed to compare similar and different aspects with the literature by investigating the distribution of patients coming to our clinic according to their age ranges, what the detectable causes might be, and which procedures were used as treatment.

METHODS

After obtaining permission from the Yozgat Bozok University Clinical Researches Ethics Committee (Date: 29.04.2024, Decision No: 2024-GOKAEK-242_2024.04.24_02), the electronic files of patients diagnosed with labial fusion in our polyclinic between 2017 and 2023 were examined. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Patients were grouped as 0-2 months, 2 months-2 years, 2 years-6 years, and over six years. Whether the patients had additional complaints, the treatment method, and whether the complaints recurred were recorded. Among these patients, those aged six and over were also examined. The complaints of patients over six, their additional complaints, the treatments they received, whether they benefited from the treatment, and the number of adhesion complaints they experienced were re-evaluated. In the light of this data, the frequently seen complaints, the processes that may cause these complaints, and the amount of recurrence were evaluated by comparing them with the literature.

The patients' data were added to the SPSS statistical program, and descriptive statistics were performed.

RESULTS

A total of 94 patients were included in the study. There were 51 patients between 2 months and two years and 34 patients between 2 and 6 years. Manual excision was applied to 50 patients, and ointment treatment was applied to 44 patients. Recurrence occurred in 13 of 94 patients and one required surgical intervention. The findings of the patients included in the study are summarized in Table 1.

Table 2 lists other complaints and findings in patients presenting with labial fusion.

Eight patients were found to be older than 6 years of age and were of school age and prepubertal. Information about this group of patients is presented in Table 3.

Table 1. Distribution of patients according to age, treatment and recurrence

Age/clinical findings (n=94)	0-2 months (n=1)	2months-2 years (n=51)	2years-6 years (n=34)	6 years and above (n=8)
Age (median) (months)	2	11.9±10	45.6±9	103±29
Fusion (total=94)	1	51	34	8
Infection	0	0	0	0
Dripping	0	0	0	0
Other	0	5	4	0
Manual excision (total=50)	1	28	16	4
Oinment (total=44)	0	23	18	3
Surgery	0	0	0	1
Other	0	0	0	0
1 recurrence (total=13)	0	5	5	3
1-3 recurrence	0	1	2	0
3< recurrence	0	0	0	0

Table 2. Other complaints and findings in patients with fusion

Age/complaints and findings	0-2 months (n=1)	2 months-2 years (n=51)	2 years-6 years	6 years and above
Hygiene problems	0	1	0	0
Constipation	0	1	3	0
Haemorrhagic	0	1	0	0
Hydronephrosis	0	1	0	0
Laparotomy	0	1	0	0
Urinary tract infections	0	0	1	0

DISCUSSION

Although labial fusion problems are more common between the ages of 3 months and three years, as in our study, it is observed that patients rarely consult a physician at older ages.[3,9] It is also said that labial fusions occurring in the older age group may be due to the ongoing effect of diseases that are thought to have developed in the vulvar region between the ages of 0-4.[8] Some studies, for example, India, have shown that the reason for this may be related to the place of residence; most of the population in India lives in villages, and health services and patient transfer services are limited.[3] The same study stated that the treatment management of the issue may be incomplete, as access to pediatric surgery services is at 50% compared to the countrywide.[3] Most labial fusions are asymptomatic.[4]

Table 3. Patients older than 6-years-old with labial fusion is demonstrated consisting clinical findings

Patients	Age	Complaint	Add complaint	Treatment	Treatment success	Recurrence
1	10	Adhesion in genital region	Frequent urinary tract infections and constipation	Manual excision in newborn period	Successful	Four months later
2	12	Striates on vulva	-	-	Successful	-
3	9	Adhesion in genital region	-	Surgical excision	Successful	-
4	7	Adhesion in genital region	-	Manual	Successful	-
5	11	Adhesion in genital region	-	Estrogen oinment	Successful	-
6	6	Adhesion in genital region	-	Manual excision +topical ointment	Successful	-
7	7	Adhesion in genital region	Diagnosed during trauma examination	Manual	Successful	-
8	12	Adhesion in genital region	Fusion + in newborn period	Manual	Successful	-

For this reason, there is a possibility that families may be lacking in perineal evaluation of their children and, as a result, the problem may be overlooked.[4] There is no problem reaching a doctor in our country, and there is a pediatric surgery branch in many cities. It should be noted that perineal evaluation is not only the duty of pediatric surgeons. Pediatricians, gynecologists, family physicians, and general practitioners can perform this examination efficiently. Although there is no written data regarding the perineal examination of all these physician groups in our country, we believe that they are not paid enough attention. Despite this, it was found pleasing that only our patients had poor perineal hygiene.

Topical estrogen preparations can be used in labial fusion treatment, and if used appropriately, it is observed that the problem disappears within 2-6 weeks.[4] The probability of recurrence of labial fusions is between 7-55%.[3] It is stated that this probability is as high as 26%.[6] It is stated that this is especially the case when manual treatment is performed, and topical creams are not used afterward.[6] However, using topical creams has some side effects. Local irritation, redness, breast budding, and hyperpigmentation of the vulva may occur.[4] Approximately half of our patients were treated using only a topical estrogen preparation. Recurrence occurred in ten patients, but no local complications were reported.

The probability of recurrence with the surgical method was found to be 9% in a study. In frequent recurrences, if the adhesion is too dense to be removed by manual treatment, a surgical procedure can be performed without trying a topical cream.[4] Unlike the literature, only one patient underwent a surgical procedure.

It has been determined that most patients with fusion problems have hygiene problems.[3] However, a study stated that using cream may not be practical in low-income societies such as Tunisia. Therefore, the best approach is to pay attention to local hygiene after manual treatment.[10] Our patients also presented clinically with complaints of a history of laparotomy, urinary tract infection, and vaginal bleeding. Constipation was most commonly associated with constipation. It may be worth examining whether there is an interaction between constipation and labial synechiae.

The internal genital structures in the labial fusion opening are not damaged or diseased. However, manual expansions may have psychological or emotional effects. When this situation is taken into account, the use of topical cream may be preferable.[2]

CONCLUSION

Labial fusion is rarely seen in the neonatal period. This situation may be considered pleasing, but it may also cause people to think that perineal examinations were not performed well. We have implemented practices directly proportional to the literature for infants and school-age children. In patients over the age of six, no apparent cause could be identified. In treatment, only one patient required a surgical procedure, such as a straightforward fusion opening. The presence of additional complaints in some of the patients raised the question of whether constipation, especially constipation, had an effect on the formation of labial fusion, although its detection was proportionally low.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of Yozgat Bozok University Clinical Researches Ethics Committee (Date: 29.04.2024, Decision No: 2024-GOKAEK-242_2024.04.24_02).

Informed Consent

Because the study was designed retrospectively, no written informed consent form was obtained from patients.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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