

Labial adhesion in children at the Jos University Teaching Hospital

Ephraim Samuels, Amaka Ngozi Ocheke, Nathaniel E. O. Samuels¹

Access this article online

Website:
www.afripaedurg.org

DOI:
10.4103/0189-6725.181622

Quick Response Code:



ABSTRACT

Background: Labial adhesion is one of the most common reasons for gynaecologic consultations in children. We sought to determine the prevalence of labial adhesions, mode of presentation and treatment in children at the Jos University Teaching Hospital.

Materials and Methods: A retrospective study of labial adhesions in children from January 2004 to December 2013. Data on paediatric gynaecological consultations, and labial adhesions were retrieved from the gynaecological clinic and the theatre records. The case notes of those with labial adhesions were retrieved and the relevant data extracted. **Results:** The total number of paediatric patients seen at the gynaecology clinic over the study period was 379 and 25 had labial adhesion (6.6%). The majority (88%) presented in the first 2 years of life, all the patients were asymptomatic, and 2 (8%) had surgical separation of the adhesions while the rest were managed conservatively. A total of 5 (20%) came for follow-up. While 2 (8%) came a week later following surgical management, 3 (12%) came back more than 6 months later due to recurrence following conservative management. **Conclusion:** Labial adhesions account for significant proportion of paediatric gynaecologic consultations. They are usually asymptomatic, occur in the first 2 years of life and frequently managed conservatively.

Key words: Gynaecological, Jos, labial adhesion, labial fusion, paediatric

hypo-estrogenic state of the female infant, the labia minora stick together in the midline, usually from posterior forwards until only a small opening is left anteriorly through which urine is passed and presents as labial adhesion.^[2] These adhesions can sometimes bind the clitoris making it difficult to distinguish an opening.^[3] Other factors implicated include vaginitis, sexual assault resulting in injuries that heal with fibrosis.^[3] Though an innocent finding and a trivial problem, its importance is that it is frequently misdiagnosed as congenital absence of the vagina.^[1]

Labial adhesion affects close to 2% of girls in the first few years of life with a peak incidence in the second year of life,^[4] however, accurate estimates are difficult as a majority of cases are asymptomatic and the condition may remain undetected.^[5] This was demonstrated in a study done to set a standard of normal genital anatomy among pre-pubertal children, and it showed that up to 38.9% of cases had labial adhesion.^[5] A retrospective study done at the Foothills Provincial Hospital in Canada to determine the incidence of labial fusion in children showed that none of the new born infants had labial adhesion. However, 1.8% assessed at the paediatric outpatient department had labial adhesion with a peak incidence of 3.3% occurring within the age group of 13-23 months.^[6]

Retrospective studies from Ilorin and Zaria revealed that labial adhesions accounted for 22.6% and 33.9%

INTRODUCTION

Labial adhesion is one of the most common paediatric gynaecologic problems.^[1] In the post-delivery

Department of Obstetrics and Gynaecology, Jos University Teaching Hospital, Jos, ¹Department of Obstetrics and Gynaecology, Federal Medical Centre, Keffi, Nigeria

Address for correspondence:

Dr. Ephraim Samuels,
Department of Obstetrics and Gynaecology, Jos University Teaching Hospital, PMB 2076, Jos, Nigeria.
E-mail: samuelsephraim@gmail.com

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Cite this article as: Samuels E, Ocheke AN, Samuels NE. Labial adhesion in children at the Jos University Teaching Hospital. Afr J Paediatr Surg 2016;13:6-8.

respectively of paediatric gynaecologic consultations.^[7,8] A previous report from the Jos University Teaching Hospital revealed that separation of labial adhesions accounted for 11.2% of gynaecologic paediatric surgeries performed over a 10 year period.^[9]

There are usually no symptoms associated with this condition, although older children may complain that there is some spraying when they pass urine.^[10] Eighty percent resolve spontaneously within one year of diagnosis, but a few will need oestrogen cream or adhesiolysis.^[3]

There has been a paucity of reports on labial adhesions in our environment hence we set out to determine the rate of its occurrence in our environment, presentation, treatment modalities and outcome of the condition.

MATERIALS AND METHODS

This was a retrospective study of labial adhesions in children at the Jos University Teaching Hospital from January 2004 to December 2013. Records of all paediatric gynaecological cases during the study period were reviewed. Patients with labial adhesions were identified from the gynaecological clinic and the theatre records, and their hospital records retrieved. The relevant data were retrieved from the case records of the patients, and these included the age at presentation, presenting symptoms as well as the modality of management. Data analysis was done using EPI info version 3.3.2 statistical software (CDC, Atlanta, GA). Results were presented as percentages.

RESULTS

The total number of patients seen at the gynaecology clinic over the study period was 34,425 while those under the age of 16 years were 379 out of which 25 had labial adhesion. Hence, labial adhesion accounted for 0.1% of all gynaecology cases while it accounted for 6.6% paediatric gynaecologic cases.

The majority of the patients (88%) presented in the first 2 years of life as shown in Table 1. The mothers of all

the patients discovered the abnormality in the external genitalia and brought them to the hospital. The patients were all asymptomatic, and examination did not reveal vaginitis, circumcision or fibrosis.

As regards treatment for labial adhesion, 2 patients (8%) were managed surgically (adhesiolysis) while 92% was managed conservatively with oestrogen cream and Vaseline. A total of 5 patients (20%) came for follow-up. While 2 patients (8%) came a week later following surgical management, 3 patients (12%) came back more than 6 months later due to recurrence following conservative management. The rest was lost to follow-up.

DISCUSSION

The major finding from our study was that labial adhesions accounted for 6.6% of paediatric gynaecological consultations in Jos University Teaching Hospital, majority of them (88%) presented in the first 2 years of life, they were all asymptomatic and majority (92%) were managed conservatively.

The prevalence of labial adhesions has been reported to be 2% worldwide.^[4] This is less than 6.6% found in our study. The difference is most likely due to the fact 2% is the prevalence in the general paediatric population, while that from our study is a hospital based prevalence in the paediatric population seeking gynaecologic consultations. Prevalence of disease conditions from hospital based studies tends to be higher than those from community based studies. Hence, hospital based studies are biased.

The prevalence of 6.6% of paediatric gynaecology consultations from our study was lower than 22.6%, and 33.9% reported from Ilorin and Zaria, respectively.^[7,8] Since labial adhesions are usually asymptomatic, the presentations would usually depend on mothers identifying the condition as was the case in our study. This would cause differences in the prevalence of the condition since these studies are all hospital based. Additionally, female circumcision, a practice implicated as an aetiological factor in the study from Ilorin, may have contributed to the higher prevalence of labial adhesions in that study.^[7] None of the patients in our study was circumcised.

We found that majority of the children with labial adhesions (88%) presented in the first 2 years of life and the oldest was in the fourth year of life. This is akin to the findings from the study in Canada^[6]

Table 1: Age at presentation of labial adhesion

Age (months)	Frequency (%)
≤12	11 (44)
13-24	11 (44)
25-36	1 (4)
37-48	2 (8)
Total	25 (100)

but different from the study in Ilorin,^[7] where labial adhesions occurred in patients as old as 16 years. This marked difference is probably due to the fact that labial adhesions in Ilorin were associated with circumcision in some patients which were not a finding in our study.^[7]

None of the patients in this study had any symptoms. Their mothers noticed anomalies of the genital tract and brought them to the hospital. There are usually no symptoms associated with the condition.^[10] Labial adhesions in these patients were most likely due to the hypo-oestrogenic state of these children. Other possible aetiologic factors such as vaginitis, fibrosis and circumcision^[3,7] were not found in these patients.

From the study, 2 patients (8%) were managed surgically while the rest were managed conservatively. In a similar trend, a prospective study done in Kano revealed that all the patients were treated conservatively with application of petroleum jelly twice daily to the separated labia.^[11] This was shown to be a satisfactory method of management as no recurrences were recorded.^[11] However, other studies have suggested that following surgical separation, recurring adhesions may be less likely to resolve with the onset of spontaneous puberty as these post-surgically separated adhesions are denser.^[5,12] A study done in Turkey on the role of topical oestrogen application and surgery in treatment of labial agglutination showed that the success rate in using oestrogen only was 66.6% compared to surgical separation which was successful in 85.7%. Recurrence was 11% in those managed with oestrogen alone and 14.2% in those surgically managed.^[13] However, all of the patients (100%) treated by manual separation with prophylaxis recovered when followed up at 3 and 9 months.^[13]

Again the follow-up from the study was 20% as only 5 patients came back. Following surgical treatment, 2 patients (8%) came a week later for follow-up and never came back. The other 3 patients (12%) came back more than 6 months later due to recurrence following conservative management and never came back after the treatment of the recurring disease. This finding is comparable to a similar study that showed that most patients were lost to follow-up with an under-reported recurrence rate following treatment.^[5]

The limitations of our study include the fact that it was a retrospective study with its associated challenges, and the sample size was small. Additionally, it was a hospital based study and majority of the patients were lost to follow-up, hence assessment of the long-term

outcome of treatment was not possible. However, the study has provided basic information about labial adhesion in our environment which would provide a backdrop for future prospective studies.

CONCLUSION

Labial adhesion, a source of great parental anxiety, is one of the most common paediatric gynaecologic problems in our environment, presents in the first 2 years of life and is usually managed conservatively. A good knowledge of the condition is important for the gynaecologist so as to properly manage and counsel patients and their parents.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Edmonds DK. Normal and abnormal development of the genital tract. In: Edmonds DK, editor. Dewhurst's Textbook of Obstetrics and Gynecology. 8th ed. UK: Blackwell Publishing; 2012. p. 421-34.
2. DeUgarte MC. Embryology of the urogenital system and congenital anomalies of the genital tract. In: DeCherney AH, Nathan L, Goodwin TM, Laufer N, Roman A. Current Obstetrics and Gynecologic Diagnosis and Treatment. 11th ed. USA: Lange Medical Books/McGraw-Hill; 2013; p. 38-66.
3. Edmonds DK, editor. Gynaecological disorders of childhood and adolescence. In: Dewhurst's Textbook of Obstetrics and Gynecology. 8th ed. UK: Blackwell Publishing; 2012. p. 480-6.
4. Goldman RD. Child health update: Estrogen cream for labial adhesion in girls. *Can Fam Physician* 2013;59:37-8.
5. Michala L, Coreighton SM. Fused labia: Paediatric approach. *Obstetrician Gynaecologist* 2009;11:261-4.
6. Leung AK, Robson WL, Tay-Uyboco J. The incidence of labial fusion in children. *J Paediatr Child Health* 1993;29:235-6.
7. Abiodun PA, Munir-deen AI. Childhood benign surgical gynaecological disorders in Ilorin, Nigeria. *Trop J Obstet Gynaecol* 2003;20:27-39.
8. Randawa AJ, Abdul MA, Umar HS. Pattern of childhood gynaecological presentations in a Nigerian tertiary health facility. *Afr J Paediatr Surg* 2008;5:73-5.
9. Ekwempu CC, Ocheke AN, Uba FA. A 10-year audit of gynaecological surgeries performed in the paediatric age group at the Jos University Teaching Hospital. *Afr J Paediatr Surg* 2010;7:178-80.
10. Lazarou G, Maldonado MQ, Mitchell K. Complete labial fusion with vaginal constriction band presenting as incomplete voiding. *Female Pelvic Med Reconstr Surg* 2013;19:181-3.
11. Anyanwu LJ, Mohammad AM. Vaginal synechiae in girls in Kano, Nigeria. *Afr J Paediatr Surg* 2011;8:121-37.
12. Kumetz LM, Quint EH, Fisseha S, Smith YR. Estrogen treatment success in recurrent and persistent labial agglutination. *J Pediatr Adolesc Gynecol* 2006;19:381-4.
13. Soyler T. Topical estrogen therapy in labial adhesions in children: Therapeutic or prophylactic? *J Pediatr Adolesc Gynecol* 2007;20:241-4.