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A 12-year-old Somalian girl presented with chronic kidney disease and died as a result of female genital mutilation- A case report

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ABSTRACT

The tradition of female genital mutilation (FGM) is practiced in many African countries, including Somalia. FGM is responsible for several short and long-term complications that can negatively influence vital and functional prognosis. We present a case of a 12-year-old girl subjected to FGM who developed urethral meatus stenosis, exacerbated by chronic renal failure and urine infection, leading to her death from a combination of complications. FGM complications, sometimes fatal, remain in developing nations. The fight against these practices must be stepped up, supported by public awareness, education, and communication efforts.

1. Introduction

The World Health Organization (WHO) defines female genital mutilation (FGM) as any procedure involving the partial or complete removal of the female external genitalia and injury to the female genital organs for cultural or other non-therapeutic reasons.[1,2] Somalia ranks top among the FGM prevalent countries, with 98% of girls and women aged 15 to 49 undergoing FGM/C, 2004–2015.[2]

Despite the increased risk of health complications among individuals impacted by this harmful practice, health workers in areas where FGM is prevalent are neither actively involved in prevention nor adequately prepared to treat its complications appropriately. Furthermore, the lack of healthcare policies, strategic plans, and specific financing create a challenging environment for preventative and care interventions.[3] It is a devastating practice that affects approximately 200 million women and girls worldwide between the ages of 15 and 49.[2]

Chronic complications include dribbling, incontinence, and calculi. Infibulation, or another kind that involves labial fusion, can cause recurrent vaginal and urinary tract infections. A narrow introitus may also restrict menstrual blood flow, causing dysmenorrhea and hematocolpos. Vaginismus and rectovaginal fistulas are also seen. Infertility is increased in victims due to persistent pelvic infections and intercourse obstruction.[4]

In a recent study from Somalia, Kulaksiz et al.[5] showed that FGM leads to prolongation of the second stage of labor, increased risk of perineal tear, increased need for emergency cesarean section, and increased neonatal ICU need in infants.

2. Case presentation

A 12-year-old girl was brought to the emergency department by her mother, complaining of anuria, vomiting, and abdominal pain. She had undergone severe Type III FGM at the age of seven. She had noticed increasing pain during micturition for many years and had a history of obstructed micturition. During micturition, she complained of a disrupted urinary stream and the splashing of very little urine.

On physical examination, she was malnourished, tired, and in pain. In a gynecological examination, the labia majora and minora had been amputated completely, with the fused labia minora remnant enclosing the vestibule except for a minimal gap at the posterior fourchette that might admit the little finger. The external urethral meatus and introitus were covered entirely, corresponding to type III female genital mutilation of the WHO classification (Fig. 1).

Laboratory investigations included a complete blood count, biochemistry, and urinalysis; she was anemic with a hemoglobin level of 5.9 g/dl. Creatinine: 10.8 mg/dL, urea: 180 mg/dL. Urinalysis showed leucocytes, blood, and proteins. Urine culture showed growth of Escherichia Coli; see Table 1 for more laboratory tests. An abdominal ultrasound in the emergency room showed increased echogenicity in the bilateral renal parenchyma, corresponding to grade II renal parenchymal disease and abdominal ascites. The other abdominal organs were normal.

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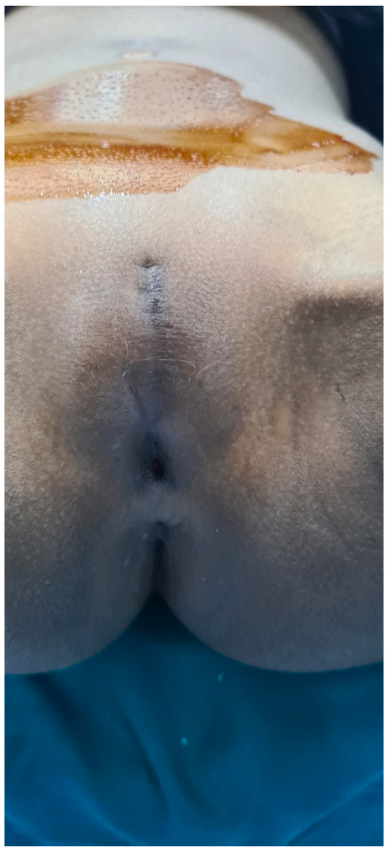

Fig. 1. Amputated labia major and minor with a fused labia minor remnant covering the vestibula.

Table 1
Laboratory investigations of the patient.

Test	Result	Normal Range
Blood Test		
White Cell Count	6.2x1000/mm3	(4-10)
Hemoglobin	5.9g/dL	(12–16)
Platelets	336x1000/mm3	(100–430)
Urea	180mg/dL	(10–45)
Creatinine	10.18 mg/dL	(0.35–1.1)
AST	17 U/L	(0-31)
ALT	6 U/L	(0-45)
Uric Acid	7.3 mg/dL	(2.3–8.2)
Total Protein	7.4 g/dL	(6.4–8.3)
Albumin	3.7 g/dL	(3.8–5.4)
Sodium	140 mEq/L	(135–150)
Potassium	5.93 mEq/L	(3.5–5.5)
CRP	1 mg/dl	(0-10)
pH	7.25	(7.35–7.45)
pCO2	29.5	(35–45)
pO2	80	(75–100)
cHCO	13	(19–27)
Urinalysis		
Leucocytes	75	(Neg-15+)
Blood	300	Negative or Trace
Protein	100	Negative or Trace
Urine Culture	Escherichia Coli	

The patient was hospitalized in the pediatric department due to anemia and obstructive nephropathy, with retention of urine secondary to occlusion of the urethral meatus due to FGM. Bladder catheterization was attempted but impossible due to the urethral meatus occluded and traumatized by the FGM. A consultation with obstetrics and gynecology doctors was made, and a decision was taken on the need for emergency defibrillation. Consent was taken from the family, and they accepted the surgery.

Fig. 2. Partial defibulation procedure with catheterization.

She underwent emergency defibrillation surgery, which involved splitting the fused labia minora in the midline superiorly until the urethral meatus (partial defibrillation) for catheterization purposes only (Fig. 2); Partial defibrillation was done at the request of the family. The cut edges of the labia minora were sutured together to prevent adhesions. After the operation and catheterization, the patient continued treatment at the pediatric intensive care units, and renal failure management was started, including hemodialysis, blood transfusion, and antibiotics. Her condition was deteriorating gradually, and after a few days in an entombed condition, she lost her life due to sepsis that resulted from a chronic infection caused by FGM.

3. Discussion

FGM is a global concern. More than 200 million girls and women between 15 and 49 are victims of this mutilation.[2] With over 28 countries practicing this mutilation, Africa is the most affected continent. A systematic review of health sector interventions from eight Sub-Saharan African nations reported evidence on what activities and strategies the health sector should adopt to combat FGM.[6] According to 2016 data, the prevalence of FGM in Somali women aged 15 to 49 is 98%, but there is no data between the ages of 0 and 15. In Somalia, the majority of FGMs are type 2 and type 3. However, no information is available in the literature about the current prevalence and types of FGM in Somalia.[5]

Hemorrhages, infections, and urological consequences, including acute mutilation and urine retention, can result in lower urinary tract infections, chronic nephritis, and end-stage kidney disease, as in our case.[7] This case in Somalia, a country with a 98% prevalence of FGM, represents only the tip of the iceberg of the complications of this practice. There might be many unreported cases, especially in the underprivileged community, without access to healthcare facilities.

4. Conclusion

Our study reports fatal complications of FGM in young Somali patients. Although our case highlights one of the detrimental adverse effects of FGM, countrywide studies should be conducted to determine the other complications of this awful practice. The fight against these practices must be stepped up, supported by public awareness, education, and communication efforts.

Ethics approval

In our institution, Ethical approval is waived from the case reports.

Consent for publication

Written and Informed consent was taken from the parents for publication of this case and the use of the images for publication.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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Declaration of competing interest

The authors declare that they have no competing interests.

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Not applicable.

References

1. Board E. *Female Genital Mutilation*. World Health Organisation; 2008.
2. UNICEF. *UNICEF's Data Work on FGM/C*. vol. 6. United Nations Child Fund; 2016.
3. Johansen REB, Ziyada MM, Shell-Duncan B, Kaplan AM, Leye E. Health sector involvement in the management of female genital mutilation/cutting in 30 countries. *BMC Health Serv Res*. 2018;18(1):1–13.
4. Epstein D, Graham P, Rimsza M. Medical complications of female genital mutilation. *J Am Coll Health Assoc*. 2001;49(6):275–280.
5. Kulaksiz D, Abdi Nor I, Erin R, Baki Erin K, Toprak T. A prospective cohort study of the relationship of female genital mutilation with birth outcomes in Somalia [Internet] *BMC Wom Health*. 2022;22(1):4–9. https://doi.org/10.1186/s12905-022-01790-2. Available from:.
6. Berg RC, Denison E. Effectiveness of interventions designed to prevent female genital mutilation/cutting: a systematic review. *Stud Fam Plann*. 2012;43(2):135–146.
7. Klein E, Helzner E, Shayowitz M, Kohlhoff S, Smith-Norowitz TA. Female genital mutilation: health consequences and complications - a short literature review. *Obstet Gynecol Int*. 2018;2018.