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Urinary Retention due to Imperforate Hymen- A Case Series

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Abstract

Four cases are reported, of young girls in their early teens with urinary retention due to imperforate hymen. The girls presented to the University Teaching Hospital Lusaka Zambia with history of recurrent episodes of urinary retention during their menses. Upon examinations they were found to have hematocolpos and thickened hymen, which ranged from complete to partially imperforate. Ultrasound studies showed evidence of non-homogenous echogenic masses suggestive of blood in the uterus. These patients were referred to the obstetrics department where the diagnosis was confirmed and subsequent excision of hymen with uterine evacuations was done. No subsequent episodes of urinary retention were observed.

Urinary retention is the commonest cause of emergency admission in Urology at the University Teaching Hospital Lusaka. It is more common in men than women. It is even uncommon in young teenage women. These case reports highlight the importance of high index of suspicion, careful examination and reproductive health education for young women especially in the African context.

Case Reports

The University Teaching Hospital is the main referral hospital in Zambia. It serves a national catchment area of 10million people, with an immediate catchment area of 2 million in Lusaka province where it is located. It is a 2000 bed hospital and houses the only government run urology centre.

Four cases of girls in their early teens were seen at the University teaching hospital over a period of two years from May 2004 to May 2006. The patients' presentations are summarized below;

Case 1

EM was an 11-year-old girl from Kafue. She presented with two episodes of acute urinary retention to her local hospital. Her mother denied history of any urinary symptoms as a child or previous to this episode. EM had no previous medical admission and denied history of any previous surgery. Her mother said the first episode occurred when she had her first period. She was taken to her local hospital and catheterized. The tube was removed after 3 days and she was well for one month. The following month when she was beginning her periods she went into retention again, this time she was catheterized and sent to the Urology unit at the University Teaching Hospital. Examination found a young girl with a visible hymen with a central perforation. An ultrasound done in the clinic found hematocolpos and all other pelvic organs were normal. The patient was referred to the department of obstetrics and gynaecology where excision of the hymen was performed. The girl was subsequently reviewed in the urology clinic after 3 and 6 months and was free of any symptoms.

Case 2

FB was a 12-year-old female seen in the emergency surgery admission ward with a diagnosis of acute urinary retention. She was catheterized and referred to the urology inpatient ward. The urology unit saw her the following day. She gave a history of sudden onset of failure to pass urine and a sensation of something blocking the urine passage. She could not recall having had any urinary problems as a child or prior to this episode. She denied any history of have started her menses. Examination revealed a healthy young lady with a thick complete hymen a distended uterus and a catheter in place. An ultrasound done in the urology outpatient clinic revealed a distended uterus with collection material of varying echogenicity suggestive of hematocolpos.

The patient was referred to the obstetrics and gynaecolgy. The gynaecologist confirmed the diagnosis and performed an excision of the hymen and uterine evacuation. The patient was reviewed in the urology clinic after discharge from the gynaecology unit and was free of any symptoms up to 6 months after the operation.

Case 3

EK was a 13 years female who was referred to the Urology clinic from Kaunda Square in Lusaka. She presented with a history of having difficulty passing urine during her periods, which improved afterwards. She had had one previous episode of failing to pass urine, which required catheterization. She had no history of being sexually active or having any Sexually transmitted diseases (STI). She had no urinary symptoms

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no history of any medical or surgical admission in the past.

On examination she was a healthy young girl with developing breasts, the vulval introitus was small, with a partially perforated hymen. Ultrasound showed no significant finding. She was referred to obstetrics and gynaecology where the diagnosis was confirmed and she had an excision of the partially perforated hymen. Subsequently she was reviewed in the urology clinic twice at 4 months and 8 months. She was free of any symptoms.

Case 4

VM was an 11-year-old girl from Chainda compound in Lusaka. The patient presented with history of initial dysuria, a lower abdominal mass and two previous episodes of urinary retention. She was referred to the University Teaching Hospital from the local clinic and seen in the urology outpatient clinic. Direct questioning revealed recent onset of menses and symptoms, which were, most marked during menstruation. The girl denied any history of sexual intercourse, sexual transmitted infections (STIs) nor pelvic trauma. She gave a history of symptoms commencing at the onset of menses and being more noticeable at the time of having periods. She gave a history of urinary retention, which was relieved by cauterization on two previous occasions. No clear history could be obtained about the actual onset of menses and it's precise relation to the urinary symptoms. Both the child and her parent were unsure about the precise sequence of the symptoms.

On examination it was noted that the patient had small introitus, with a thickened hymen. The uterus was bulky and palpable per abdomen. Digital per vaginal examination was not possible. Ultrasound done in the urology clinic revealed a bulky uterus with non-homogenous echogenic content suggestive of blood. The patient was referred to obstetrics and gynaecology, where examination under anaesthesia confirmed imperforate hymen and hematocolpos. The patients had removal of the hymen and evacuation of hematocolpos.

The patient was followed up for 6 months in the urology clinic with no further recurrence of urinary symptoms.

Discussion

Acute urinary retention is the most common urological emergency at the University Teaching Hospital Lusaka[1]. This is predominantly a condition seen in men[2]. The frequency of imperforate hymen ranges from 1 per 1,000 to 1 per 10,000 [3]. The association of imperforate hymen with acute urinary retention is well described in the literature[4]. Though widely reported this condition, has not been previously reported in our centre. We found very few reports in the African literature[5]. The out come of early catheterization and excision of the hymen results in an excellent outcome both in our series and that reported. The mechanisms are the mechanical obstruction of the urethral by the adjacent distended Vagina and Uterus .A high index of suspicion is needed to make the initial diagnosis. The patient is frequently referred to the surgeon or urologists with the impression of a primary urological disease, when in fact the cause is gynaecological. In the African culture where menstruation is surrounded by several myths and taboos the prompt management of this condition in a health institution is likely to protect these young girls from unnecessary health risks in the community.

Conclusion

We report 4 cases of acute retention in young girls secondary to imperforate hymen. Though this is widely reported in the literature, it has not been widely reported in Africa. In view of the several myths and taboos related to menstruation in African cultures this condition requires wider dissemination in the region. The management is easy with good outcome upon prompt treatment of the problem. Primary education of parents and primary care physicians is likely to result in good outcomes for these patients.

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