

A New Technique For Treatment of Imperforate Hymen By Aortic Punch

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To present a case of imperforate hymen treated by aortic punch without damaging the structure of the hymen. A 15-year-old girl was admitted to our clinic with history of pelvic pain for 3 months. On inspection of external genitalia, a bulging bluish membrane was seen on retracting the labia without a patent hymenal orifice. Suprapubic ultrasonographic examination demonstrated a large hematocolpos measuring 17x10 cm and hematometra measuring 3x4 cm. The hymen was perforated to 0.5 cm in diameter by an aortic punch from the middle of the distended and imperforate hymenal membrane. Blood in the vagina was drained using irrigation with a saline solution. Postoperative period was uneventful. The patient was followed up for 6-months; the patient was asymptomatic and had regular normal menstrual cycles and normal pelvic ultrasonography. Hymen protection is important in different ethnic groups and countries as it is in our country, when treatment is planned, the sociocultural values of the society should be considered.

Key Words: Imperforate Hymen, Treatment, Aortic Punch.

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Introduction

Imperforate hymen is a rare congenital anomaly, with an incidence of about 1 in 2000 female births.¹ The hymen is an embryological remnant of mesodermal tissue that normally perforates during the later stages of embryo development. If there are no perforations through the membrane, the hymen is called imperforate.²

The diagnosis of imperforate hymen is usually not detected before puberty and generally asymptomatic until puberty.³ Usual symptoms are: lower abdominal pain, abdominal mass and urinary retention.²

MRI will delineate these abnormalities and is considered the gold standard for diagnosis.⁴ Treatment generally consists of a hymenotomy or a hymenectomy. Because the hymen is a symbol of virginity in some communities, its destruction can be source of social problems for some girls.¹ For this reason, the techniques used to preserve the hymen are preferred in selected patients.

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We treated our case with minimally invasive, comfortable and practical method; because the patient and her family requested protection of the hymen. For the anastomosis on aortic wall to be successful in cardiopulmonary bypass, the aortic wall should be opened with circular opening that is the same as the diameter of the anastomosed vessel. A disposable piercing instrument named "Aortic Punch" is used for this purpose, and it is found in different diameters (Figure 1). We drained the collected blood in imperforate hymen, by making a 0.5cm diameter in the centre using the aortic punch.



Figure 1: The aortic punch

Case Report

A 15-year-old girl was admitted to our clinic with history of pelvic pain for 3 months which increased in severity for last

4 days. The patient had not started her menses yet. Secondary sexual characteristics were present. On inspection of external genitalia, a bulging bluish membrane was seen on retracting the labia without a patent hymenal orifice (Figure 2).

The hymen was found to be imperforated and was bulging forwards. Suprapubic ultrasonographic examination demonstrated a large hematocolpos measuring 17x10 cm and 3x4 cm cystic lesion within the uterine cavity (hematometra). Bilateral



Figure 2: Slightly bulging imperforate hymen

ovaries were normal. Surgery was performed under local anesthesia. Patient was positioned in lithotomy. Vulva and vagina region was cleaned with povidone iodine solution. The hymen was perforated to 0.5 cm in diameter by an aortic punch from the middle of the distended and imperforate hymenal membrane. Around 800 ml of dark, red, tarry blood was drained. The blood in the vagina was drained using irrigation with a saline solution. Postoperative ultrasonography of the pelvis showed resolution of hematocolpos. A single dose intravenous prophylactic antibiotic was administered to the patient (1 gr Seftizoksım sodyum, Cefizox®; Eczacıbaşı, Istanbul, Turkey). Postoperative period was uneventful (Figure 3). She was discharged from the hospital on the following six hours. The patient was followed up 3-monthly, the girl was asymptomatic and had regular normal menstrual cycles, normal pelvic ultrasonography and hymen was annular intact.



Figure 3: Appearance of perforated hymen after aortic punch

Discussion

Imperforate hymen (IH), with an incidence of about 1 in 2000 at birth, it is the most common congenital cause of genital outflow obstruction in females.³

The symptoms that appear after the onset of puberty are due to accumulation of menstrual blood. After puberty, menstrual blood and other fluids usually accumulate in the vagina, uterus, and even fallopian tubes, causing cyclic abdominal pain, abdominal mass and acute urinary retention.⁵ The symptoms are seen between the ages of 13 and 15 when the girl starts her menstruation. There was no concomitant urogenital abnormalities.² Urinary hesitancy or dysuria may be the presenting complaint in 58% of patients presenting with hematocolpos.³ In our case, the patient admitted to our clinic with pelvic pain and ultrasonographic examination revealed hematocolpos and hematometra.

Hematometra and hematosalpinx may cause infertility, endometriosis and ectopic pregnancy in the future, therefore early diagnosis is important to avoid these complications.⁶ Ultrasonographic demonstration of the dilated vagina generally prompts for the diagnosis and appropriate consultation of patient to gynecologist.³

The diagnosis can be established with the help of abdominal ultrasound showing the pelvic cystic mass.² Visual inspection of totally closed hymenal structure, bulging of hymen out of the vagina and ultrasonographic detection of haematocolpos are also diagnostic for imperforate hymen.⁵

The classical surgical treatment of imperforate hymen, involves hymenectomy or hymenotomy using a cruciate, plus, or X-shaped incision.³ These procedures produce good surgical outcome, but the hymenal structure is usually damaged.

Destructive procedures which are used to treat imperforate hymen might have important sociocultural and psychological consequences for patients in different cultures and religious groups.³ In some countries where bleeding at first coitus defloration is accepted as a sign of the pureness of the woman, parents were usually tense and nervous about the hymenotomy procedures of their daughters.

In this report, we present a case of imperforate hymen treated by aortic punch without damaging the structure of the hymen. This method can be applied because when it is compared to other methods of hymen protective treatment methods is more practical, easy, less invasive and successful. Also in our technique the obtained opening is more circular, more regular and very similar to annular hymen form which is the most common form.

Hymen protection is important in different ethnic groups and countries as it is in our country, when treatment is

planned, the sociocultural values of the society should be considered.

Aortic Punch ile İmperfore Hymen Tedavisi İçin Yeni Bir Teknik

Hymen yapısını bozmadan aort punch ile tedavi edilen bir imperfore hymen olgusunun sunulması. 15 yaşındaki bir kız 3 ay süren pelvik ağrı yakınması ile kliniğimize başvurdu. Dış genital muayenede, labiumlar çekildiğinde patent hymenal delik olmadan şişkin mavimsi bir zar görüldü. Suprapubik ultrasonografik incelemede 17x10 cm genişliğindeki büyük bir hematom ve 3x4 cm boyutlarında hematometra görüldü. İmperfore hymenal membran ortadan aort punch ile 0.5 cm çapında delindi. Vajinadaki kan serum fizyolojik ile yıkama kullanılarak boşaltıldı. Postoperative periyod sorunsuz geçti. Hastanın 6 ay boyunca takibinde; hasta asemptomatik ve düzenli normal siklus ve normal pelvik ultrasonografisinin olduğu görüldü. Bu tedavi planlandığı zaman, toplumun sosyokültürel değerleri dikkate alınmalıdır, ülkemizde olduğu gibi hymenin korunması farklı etnik gruplar ve ülkeler açısından önemlidir.

Anahtar Kelimeler: İmperfore Hymen, Tedavi, Aortic Punch

References:

1. Chelli D, Kehila M, Sfar E, Zouaoui B, Chelli H, Chanoufi B. Imperforate hymen: Can it be treated without damaging the hymenal structure? *Sante* 2008;18: 83-7.
2. Dane C, Dane B, Erginbas M, Cetin A. Imperforate hymen-a rare cause of abdominal pain: two cases and review of the literature. *J Pediatr Adolesc Gynecol* 2007; 20:245-7.
3. Basaran M, Usal D, Aydemir C. Hymen sparing surgery for imperforate hymen: case reports and review of literature. *J Pediatr Adolesc Gynecol* 2009;22:61-4.
4. Burgis J. Obstructive Mullerian anomalies: Case report, diagnosis, and management. *Am J Obstet Gynecol* 2001; 185:338.
5. Ali A, Cetin C, Nedim C, et al: Treatment of imperforate hymen by application of Foley catheter. *Eur J Obstet Gynecol Reprod Biol* 2003;106:72.
6. Erdemoğlu E, Kolusarı A, Şahin G, Kamacı M. Familial Imperforate Hymen. *J Turkish-German Gynecol Assoc* 2007;8:88-9.