Fitz-Hugh Curtis Syndrome: An Incidental Finding During Infertility Workup

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ABSTRACT

Fitz-Hugh-Curtis syndrome (FCHS), also known as acute perihepatitis, is a rare disorder characterised by inflammation of the peritoneum and the tissues surrounding the liver. This syndrome can arise as a potential complication from a pelvic inflammatory disease caused by Neisseria gonorrhoeae or Chlamydia trachomatis. This is a case of 26years' healthy asymptomatic woman with primary infertility where this syndrome was diagnosed incidentally during laparoscopy.

INTRODUCTION

Fitz-Hugh-Curtis syndrome is a rare disorder that occurs almost exclusively in women. It was described by Arthur H Curtis in 1930 and Thomas Fitz-Hugh Jr in 1934.1,2 It is characterized by inflammation of peritoneum and the tissues surrounding the liver leading to adhesions. It is rare complication of pelvic inflammatory disease mostly caused by Neisseria gonorrhoeae or Chlamydia trachomatis.3

This syndrome in acute phase is characterized by right upper quadrant pain (RUQ), fever, abdominal pain, and vaginal discharge. The RUQ pain is typically sharp, pleuritic, exacerbated by movement and often referred to the right shoulder. It may be associated with nausea, vomiting, hiccupping, chills, fever, night sweats, headache, and malaise. The chronic phase may show persistent, dull pain in the right upper quadrant or the pain may subside. On examination there is lower abdominal tenderness, cervical motion tenderness and tender adnexa or there may be no abnormalities.4

In this case, this syndrome was diagnosed incidentally in a healthy asymptomatic infertile women during laparoscopy and definitive violin string sign was seen.

CASE

Our patient is a 26 years lady from Dolakha who presented to OPD on January, 2018 (Magh, 2074) with complain of inability to conceive for one year. She was regularly menstruating lady and having regular sexual contact with husband. She had no
significant prior medical or surgical history. Per speculum examination and bimanual examination was normal.

Initial infertility workup with CBC, TFT, and ultrasonography was normal. Semen analysis was normal. Patient was given folic acid and advised to do regular sexual contact for 3 months. She again presented to OPD after 3 months on 29th May 2018 (15th Jestha, 2075) with the same complain.

She was admitted on 12th June 2018 (29th Jestha, 075). Diagnostic hysteroscopy with diagnostic laparoscopy with chromatubation was done on 13th June, 2018 (30th Jestha, 075). Diagnostic Hysteroscopy showed normal endometrial cavity with flimsy mucous like debris seen in bilateral ostia (Figure 1).

Suction of debris done with MVA cannula. Diagnostic Laparoscopy showed dense adhesion between posterior surface of uterus, tubes and ovaries with omentum. There were adhesion bands in undersurface of liver capsule giving characteristic violin string sign (Figure 2).

Chromatubation done showed free spillage from right tube and minimal spillage from left tube (Figure 3).

Adhesiolysis of all adhesions were done.

Post-operatively, patient was kept on Inj Clindamycin 900 mg IV TDS for 2 days and then switched to Tab Clindamycin 600 mg PO TDS for 12 days. Inj Gentamicin 80 mg IV BD given for 2 days. Tab Azithromycin 1 gm stat was given orally. Treatment of partner was done with stat dose of Tab Azithromycin 1 gm and Tab Cefixime 400 mg. Patient was discharged on 6th postoperative day and was stable at the time of discharge. Patient was followed after 3 months and HSG was done which showed B/L free spillage.

DISCUSSION

W Fitz-Hugh-Curtis syndrome is common among women of child bearing age. It is a rare complication of PID. The incidence of FHCS ranges from 12% - 14% in women with PID. Chlamydia trachomatis and Neisseria gonorrhoeae were considered the principal causative agent. The correlation between Chlamydia trachomatis infection and FHCS has been explored in several studies.  

Although the pathogenesis of FHCS due to Chlamydia trachomatis and Neisseria gonorrhoeae infection is still poorly understood, there were several probable mechanisms: the thinning of cervical mucus, and subsequent ascending transmission of the vagina to the uterus, fallopian tube, paracolic gutter and reached Glisson's
capsule. The bacteria may spread via the
direct extension from peritoneal fluid from
the pelvis through the paracolic gutter.8,9 The
longterm complications of Fitz-Hugh-Curtis
syndrome are rare but are related to PID.
They include abdominal pain, small bowel
obstruction, and infertility.10

Study done by Ugboaja et al. in eighty
infertile women in Holy Rosary Specialist
Hospital, Nigeria between 1st November,
2015 to 30th April, 2017 showed Fitz-Hugh-
Curtis syndrome in 11 (13.8%) of cases.11

Bayuaji et al conducted observational
retrospective study in Assisted Reproductive
Technology Unit, Hasan Sadikin Hospital
Bandung, Indonesia. They reviewed the
medical records of 315 infertile women
who underwent gynecologic laparoscopy
procedure from 2011 to 2016. Of 315
women, Fitz-Hutz Curtis syndrome was found
in 108 (34.3%).12

Sharma et al. (2002) reported Fitz-Hutz Curtis
syndrome in 16.6% infertile women and
Kobayashi et al. (2006) reported in 14.8%
infertile women.13,14

CONCLUSION

Fitz-Hugh-Curtis syndrome is often
underdiagnosed. So this syndrome should
always be considered in the woman with
infertility and the undersurface of the
liver should always be visualized during
laparoscopy for tubal patency in all cases of
infertility.

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