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Case Report

False Positive Bilateral Tubal Block on Hysterosalpingography and Psycho-Cultural Impact on Male Factor Infertility

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Abstract

Mrs IB presented with 20 years history of inability to conceive despite having regular unprotected, satisfactory intercourse whenever husband comes for vacation. She had a month's history of vaginal discharge with no other associated symptom. She is married to a 56 year old man in a polygamous marriage. Madame IB's co-wife has 5 children and her last child birth was 20 years ago. She has a regular monthly cycle with flow lasting for 3-4 days, no history of contraceptive use or previous miscarriage.

She has been in and out of several health centers with HSG report of bilateral tubal blockage. The husband never did semen analysis on his previous visits as he believed he was normal until four months ago when the couple came to our center. Laparoscopy and chromopertubation was performed which demonstrated bilateral tubal patency with spillage of dyes into the pouch of Douglas. There were neither adhesions nor ovarian pathology. The semen analysis was found to have severe Oligo-astheno-teratozoospermia.

Holistic evaluation of infertile couple is always recommended. Isolated incomplete evaluation based on assumptions of previous fertile episodes should be discouraged in our practice. Male factor infertility is common the psycho-cultural impact if not addressed may lead to prolong duration of infertility and delays appropriate treatment.

Keywords: HSG; False Positive; Laparoscopy and Dye Test; Male Infertility

Introduction

IIn the primary evaluation of Subfertile couple is recommended that both are seen together and also at different times individually to thoroughly assess the cause of subfertility [1]. However, in our settings male folk will always look for a reason to avoid first and subsequent visits to fertility clinic if avoidable as the society believed that they are not responsible for the subfertility. This assumption is more profound when the male partner had children in the past.

Having children in the past is not a guarantee that things will not go wrong in future for both male and female partners seeking for fertility treatment. Therefore thorough investigation should occur for both and results interpreted to arrive at possible factors responsible for subfertility.

Investigations that are performed in the primary evaluation includes the semen analysis, hysterosalpingography (HSG) or saline sonography (SSG) or hystero-contrast-sonography (HYCOSY), a pelvic ultrasound and serum progesterone at mid-luteal phase. The result of each of these investigations will determine what happens next.

Further investigations is almost always required when HSG suggest tubal block as there is a false positive rate of 10% which may increase if tubal spasm occur during the procedure.

Sensitivity and specificity of HSG were 53% and 87% for any tubal pathology and 46% and 95% for bilateral tubal pathology. It has high specificity as a screening tool with low sensitivity;e.g. when there is no tubal block on the HSG report is almost certain that the tube is normal (high Specificity =87 to 95%). A positive HSG which means tubal block on the HSG report is not always synonymous with tubal block (low sensitivity = 46 to 53%) [2, 3].

Therefore, in this case report the female partner had to go through secondary assessment of the fallopian tube using Laparoscopic surgery which showed tubal patency. The male factor was not looked into until Tubal assessment revealed normal tubes. The essential information of this report is male folk reluctancy and socio-cultural dominancy that makes male partners in our setting avert primary investigation of subfertility evaluation [4]. This psycho-cultural fact may impact negatively on the diagnosis and treatment of infertility. The study on Gambian men regarding in-

fertility suggests poor knowledge of infertility, allocating it to god, spiritual powers and bodily (biomedical) factors. While societal norms meant that infertility was generally attributed to women [5]. Infertility threatened participants' sense of masculinity and resulted in psychosocial distress, including stigma, feelings of isolation, and low self-esteem [5]. In view of these psycho-social and cultural norms most men in the Gambia and indeed in most sub-Saharan Africa may delay coming for semen analysis and some may not come at all. This will invariably, delay appropriate treatment and prolong the duration of subfertility as seen in this case report. Male factor infertility is on the raise and the rate of increase has been reported to vary from country to country and region to region [6, 7, 8].

Overwhelming evidence have shown that normal semen parameters has been declining for the past 50 years [9, 10, 11]. The rate of decline and variations defer from region to region and continent to continent [6, 7, 8]. Scholars who did a recent study in this area suggests that, in the western part of sub-Saharan Africa the decline is rapid and grossly abnormal semen parameters are seen [12]. What is discovered that is very pertinent to this our recent findings in our study is that in western region of sub-Saharan African there is a remarkable increase in male factor infertility [12].

Case Report

WWe present Mrs IB a 38 year woman with 20 years of inability to conceive despite having regular unprotected, satisfactory intercourse whenever husband comes for vacation.

She had a month's history of vaginal discharge with no other associated symptom. She is married to a 56 year old man in a polygamous marriage. Madame IB's co-wife has 5 children and her last child birth was 20 years ago. Thereafter, the husband married a second wife (Mrs IB), travelled and now visits every year to see the family.

She has a regular monthly cycle with flow lasting for 3-4 days, no history of contraceptive use or previous miscarriage. She has been in and out of several health centers private and public for many years until she was told that her HSG report showed bilateral tubal blockage. The husband on subsequent visits believed that his wife has problem and he decided to bring her to our hospital (Edward Francis Small Teaching Hospital Banjul).

On this occasion the husband had stayed 4 months and was determined to see to the end of the problem before going back to his base. At the teaching hospital we always insist on holistic approach to care in this case includes semen analysis and Laparoscopic assessment of the tubes.

During Laparoscopy and chromopertubation there were demonstrable tubal patency with bilateral spillage of dyes into the pouch of Douglass. There were neither adhesions nor ovarian pathology. The semen analysis was found to have severe Oligoasthenoteratozoospermia (OAT).

Figure 1: Laparoscopy and Chromopertubation.

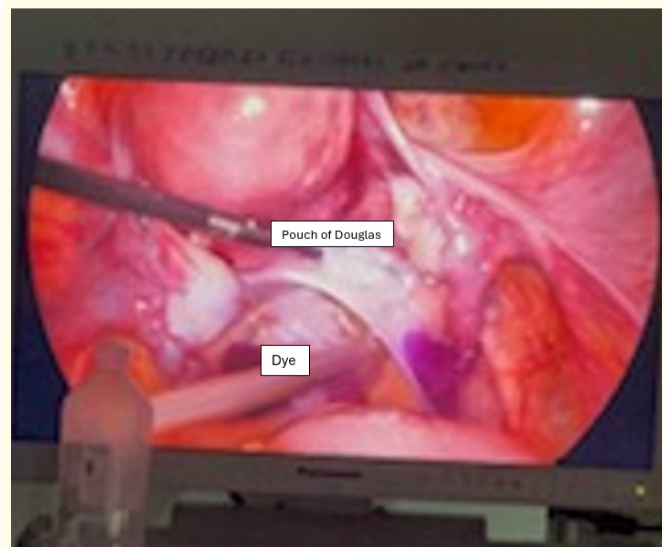

Figure 2: Demonstration of dye in the pouch of Douglas.

Discussion

RRegarding age of couple and duration of infertility the concern of hidden male factor conditions a menace in the epidemics of subfertility in our setting becomes more worrisome. The 56 year old man had children and the last child birth was 20 years ago even as he just married Mrs IB who was one year in marriage with him. The man travelled soon after the last child birth and now visits for

few weeks to months every year. He believed all is well with him and other health facilities perhaps never insisted that he should do semen analysis. What broke the Camel's bag was when a false positive hysterosalpingography (HSG) report was given and the solution to her problem an enigma and husband test was delayed by the previous health facilities they were going before coming to our center. The negative impact of male folks psycho-social, cultural, tradition and customs supports believing that female partners are the cause of subfertility or the gods are responsible [5].

An HSG is a very important tool in the assessment of tubal factor. It is available and affordable. However, the sensitivity and positive predictive value is low, but has high specificity and negative predictive value [2, 3].

Laparoscopy and dye test is required when HSG result is abnormal. Laparoscopy is a secondary level assessment of the fallopian tubes not a primary test because is invasive, a surgical procedure with potential risk of mild to severe complications.The patient stayed too long in her condition of assumed tubal block without checking male factor. Male factor is driving the epidemic of infertility world-wide [13]. Male factor infertility contributes to 30%-40% of infertility in couples overall [13].

It is therefore, imperative that infertility not be seen as either a female or male problem but that the problem is addressed as a couple. Education of the population about male infertility is needed to eliminate the stigma around the condition [13, 14] and to address the reluctance of some men to be tested [13, 14]. The evaluation of the male must always occur in parallel to the evaluation of the female. Invasive procedures like laparoscopy or myomectomy should not be performed without a semen analysis on the male partner. The fact that a man has children in a previous relationship should never be a reason not to test the man.

In this case report, the HSG result was bilateral tubal block which required Laparoscopy as second line assessment tool to confirm tubal block even when we had seen the semen report that showed severe Oligoasthenoteratospemia (OAT).

Conclusion

Holistic evaluation of infertile couple is always recommended. Isolated incomplete evaluation based on assumptions of previous fertile episodes should be discouraged in our practice as male factor infertility has become a predominant problem in the management of Subfertile couple.

There is need to encourage male folk to support and present themselves for assessment during fertility evaluation irrespective of prior number of children.

Study Limitation

A single case report of this topical issue peculiar in most sub-Saharan Africa where male dominance still persists.

Ethics Approval and Consent to Participate

Ethical approval was requested and secured from Research and Ethics Committee of Edward Francis Small Teaching Hospital. Informed consent was obtained from the couple and personal information were confidential.

Consent to Publish

Not applicable.

Availability of Data and Material

The data and laparoscopy pictures of this case study are available and can be shared on reasonable request.

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Conflicts of Interest

There is no competing interests between the authors.

Authors' Information

PI is an Obstetrician/Gynaecologist at EFSTH.

Bibliography

1. Foroozanfard F and Sadat Z. "Diagnostic Value of Hysterosalpingography and Laparoscopy for Tubal Patency in Infertile Women". *Nursing and Midwifery Studies* 1.4 (2013): 188-192.

2. Gnoth C., *et al*. "Definition and prevalence of subfertility and infertility". *Human Reproduction* 20.5 (2005): 1144-1147.

3. Broeze KA., *et al*. "Are patient characteristics associated with the accuracy of hysterosalpingography in diagnosing tubal pathology? An individual patient data meta-analysis". *Human Reproduction Update* 17.3 (2011): 293-300.

4. Asemota OA and Klatsky P. "Access to infertility care in the developing world: the family promotion gap". *Seminars in Reproductive Medicine* 33.1 (2015): 17-22.

5. Dierickx S., *et al*. "Men and infertility in The Gambia: Limited biomedical knowledge and awareness discourage male involvement and exacerbate gender-based impacts of infertility". *PLos ONE* 16.11 (2021): e260084.

6. Swan SH. "Semen quality in fertile US men in relation to geographical area and pesticide exposure". *International Journal of Andrology* 29 (2006): 62-68.

7. Fisch H and Goluboff ET. "Geographic variations in sperm counts: A potential cause of bias in studies of semen quality". *Fertility and Sterility* 65 (1996): 1044-1046.

8. Jørgensen N., *et al*. "Regional differences in semen quality in Europe". *Human Reproduction* 16 (2001): 1012-1029.

9. Carlsen E., *et al*. "Evidence for decreasing quality of semen during past 50 years". *BMJ* 305 (1992): 609-613.

10. Auger J., *et al*. "Decline in semen quality among fertile men in Paris during the past 20 years". *The New England Journal of Medicine* 332 (1995): 281-285.

11. Lackner J., *et al*. "Constant decline in sperm concentration in infertile males in an urban population: Experience over 18 years". *Fertility and Sterility* 84 (2005): 1657-1661.

12. Baoyi Huang., *et al*. "Global, regional and national burden of male infertility in 204 countries and territories between 1990 and 2019: an analysis of global burden of disease study". *BMC Public Health* 23 (2023): 2195. https://doi.org/10.1186/s12889-023-16793-3

13. Klock SC. "Psychological issues related to infertility". *The Global Library of Women's Medicine*. Sapiens Publishing, LTD; 2009 (2009): 2228. http://dx.doi.org/10.3843/glowm.10413

14. World Health Organization (WHO). "Infertility definitions and terminology". http:// www.who.int/reproductivehealth/top-