

## Review Article

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## Pregnancy in Complicated Infertile Case of Asherman Syndrome with Pelvic Inflammatory Disease and Multiple Leiomyoma

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### ABSTRACT

**Background:** The Asherman's Syndrome (AS) is rare acquired pathological disease which characterized by presence of intrauterine adhesions (IUAs) that contributed to several health events lead to infertility. The PID frequently correlated to tubal infertility which results from inflammatory events, progressive fibrosis and subsequent scarring if delayed the diagnosis and antibiotics management. Also, the Uterine leiomyomas had significant linked to female infertility. Therefore, strict individualized infertility management for complicated cases is essential approach to achieve pregnancy outcome.

**Methods and Patient:** This case study illustrate a complicated infertile Libyan women with Asherman syndrome, pelvic inflammatory disease and multiple leiomyoma which presented to private infertility management clinic on Tripoli, Libya, 2024. The case expressed several treatment modalities that ended by successful pregnancy achievement.

**Comments:** Although, the Asherman syndrome, pelvic inflammatory disease and multiple leiomyoma had significant long term adverse impact on female infertility. But with introducing various treatment modalities, the pregnancy achievement became possible when managed strictly.

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### List of abbreviations

**AS:** Asherman's Syndrome

**Beta HCG:** Beta human chorionic gonadotropin

**HSG:** Hysterosalpingogram

**IM:** Intramuscular

**IV:** Intravenous

**IUAs:** Intrauterine adhesions

**MRI:** Magnetic resonance imaging

### Introduction and Aim

The Asherman's Syndrome (AS) is rare acquired pathological disease which characterized by presence of intrauterine adhesions (IUAs) that contributed to several health events lead to infertility and affected 4 in 10,000 women [1-3].

Early diagnosis via hysteroscopy and prompt management via adhesiolysis can attributed to future conception and good pregnancy outcome [4-5].

Pelvic inflammatory disease (PID) is chronic inflammation of upper reproductive tract which affected by genital microorganism that cause damage to endometrium, fallopian tubes, ovaries and pelvic peritoneum [6-7].

The PID frequently correlated to tubal infertility which results from inflammatory events, progressive fibrosis and subsequent scarring if delayed the diagnosis and antibiotics management [8-10].

Also, the Uterine leiomyomas had significant linked to female infertility and the myomectomy whether laparotomy or laparoscopy manner had well evidence to achieve uterine preservation and good results [11-12]. Therefore, strict individualized infertility management for complicated cases is essential approach to achieve pregnancy outcome.

This study aimed to present the management path of complicated infertile Libyan women with Asherman syndrome, pelvic inflammatory disease and multiple leiomyoma which ended by pregnancy.

### Methods and Patient

On 10th June 2024, Tripoli, Libya. A 30 years old infertile woman with history of 14 years primary infertility presented at private infertility clinic for seeking infertility therapy advice.

The patients undergone detailed clinical assessment which illustrated had several infertility therapy failure trials inside and outside Libya.

Currently, the patient expressed scanty irregular menstruation, recurrent vaginal infection and discharge.

On transvaginal ultrasound evaluation revealed thick endometrium of uterus, mild fluid in pouch of douglas, polycystic ovarian picture on both ovaries (string of pearls sign) with multiple leiomyoma observed.

The patient brought hysterosalpingogram (HSG) picture which requested for it last few months from other physician, the picture showed partial synechiae in lower segment (confirmed Asherman syndrome) with bilateral hydrosalpinx severe type.

The routine blood investigations and hormonal assay reported to be within normal ranges. While on assess the husband semen analysis revealed pyospermia and oligospermia.

Both couple assigned to initiate antibiotics for pelvic inflammatory disease and pyospermia which included Penicillin 800,000 IU IM twice for five days, Metronidazole 500 mg IV twice for five days then orally twice for ten days, ciprofloxacin one gram orally once for 15 days, Doxycycline 200 mg orally once for 16 days and Clindamycin 300 mg orally three times per day for 15 days.

The patient also prescribed for folic acid, multivitamins and inositol supplements once daily. And requested for pelvic magnetic resonance imaging (MRI) to confirm leiomyoma.

Next week later, the patient had confirmed 12 scattered leiomyoma on pelvic MRI which prepared for myomectomy after three weeks.

Three weeks after, the patient undergone laparotomy surgical operation of myomectomy and adhesiolysis as well as intrauterine serum plasma injections (20 ml) into ovaries and uterus with twice ovarian massage had done to help on restore blood circulation.

And intraoperative hydrotubation procedure performed under general anesthesia via insertion of intrauterine silicon urinary catheter for pelvic washing and fluid removal by used ringer lactate 50 ml then introducing hydrocortisone 100 mg, gentamicin 80 mg, alpha chymotrypsin and hyoscine-N-Butylbromide along with intrauterine plasma given.

After three months, the patient had restored regular normal amount menstruation and asked to repeat the hysterosalpingogram picture to compare it with previous picture. The new picture revealed significant improvement, no partial synechiae detected and mild type hydrosalpinx bilaterally (Figure 1).



**Figure 1:** Comparison between the Hysterosalpingogram Pictures before and after Management

Also, the patient advised to perform second session of intraoperative hydrotubation procedure with same previous treatment regime and continuous multivitamin supplements.

Additionally, the semen analysis of husband repeated which showed to be acceptable and treated from pyospermia.

On 28th August, the patient came to clinic complaining of amenorrhea which requested for serum Beta HCG concentration had showed 1250 mIU/ml result with obvious intrauterine gestational sac detected that confirmed pregnancy and planned for further antenatal consultation.

#### Comment

Although, the Asherman syndrome, pelvic inflammatory disease and multiple leiomyoma had significant long term adverse impact on female infertility. But with introducing various treatment modalities, the pregnancy achievement became possible when managed strictly.

#### Conflict of Interest

There is no conflict of interest regarding the publication of this case report.

#### Funding sources

There is no fund or grant were received for this study project.

#### Patient Consent

Obtained.

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