

THERAPEUTIC IMPLICATIONS
OF
DIAGNOSTIC HYSTEROSCOPY FOR CORNUAL OCCLUSION

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Hysteroscopic cannulation is an excellent technique in selected patients. However, we are concerned that unnecessary surgery may result in perforation, trauma, bleeding and postsurgical scarring.

Since initial reports of transvaginal tubal cannulation for proximally occluded tubes about 1985, there have been additional reports of tubal cannulation. This is often discussed as a therapeutic rather than a diagnostic procedure. Some of these procedures have been performed without cervical culture or preoperative medication. It would appear that some of the patients being reported as successful therapeutic cannulation might have been more properly reported as successful diagnostic cannulation or alternately may represent overuse of the equipment.

This paper is written to demonstrate the experience of a combination of hormonal suppression, antibiotic therapy and hysteroscopic cannulation on patients with cornual disease.

Ovarian Suppression	- Dr. Brian Cohen, 1977*
Antibiotics	- Dr. Jabez Jackson, 1979

All patients had chlamydia cultures and standard cultures prior to surgery. These were treated until the cultures were negative. Danocrine and GnRH analogs were used to suppress hormonal production due to an association of endometriosis with cornual occlusion. Doxycycline was used in all

patients due to a high incidence of positive Chlamydia IGG titers and the inability to perform cornual Chlamydia cultures.

Cornual Occlusion 1980 - 1985
Medically opened - 70% Pregnant
Surgically opened - 30% Pregnant

Protocol
Cultures and titers
Antibiotics
Consider hormonal suppression
Try or repeat HSG
Consider cannulation or IVF

Ovarian suppression and antibiotics were used for eight weeks prior to hysterosalpingogram and/or hysteroscopy for 26 patients.

Tubal Status
Open on Medication - 16 (62%)
Cannulated - 4 (15%)
Stenosis - 2 (8%)
Fibrosis (SIN) - 4 (15%)

The 0.018 inch cannula was passed approximately 1 to 1 1/2 cm prior to meeting obstruction at about the isthmic cornual junction in 2 (9%) patients. There was no gross abnormality at laparoscopy on these two. Endometriosis was found in 11 (42%) of these patients at laparoscopy.

* See ADDENDUM

Positive Chlamydia IGG Titer	
Open on Medication	- 81% (13 of 16)
Cannulated	- 75% (3 of 4)
Stenosis	- 50% (1 of 2)
Fibrosis (SIN)	- 100% (4 of 4)

Perforations	
Open on Medication	- 0% (0 of 16)
Cannulated	- 0% (0 of 4)
Stenosis	- 0% (0 of 2)
Fibrosis (SIN)	- 50% (2 of 4)

Patients with Hydrosalpinges - 7	
3 (43%)	opened with medication
2 (29%)	salpingitis isthmica nodosa
1 (14%)	fibrotic stenosis
1 (14%)	cannulated

In this study, 62% of patients with cornual occlusions responded to a combination of hormonal suppression, antibiotics and repeat tubal studies. Radiologic tubal cannulation as a diagnostic or therapeutic procedure may be successful in certain patients but may not demonstrate coexistent salpingitis isthmica nodosa and is ineffective against hydrosalpinges and endometriosis.

Combined hysterosalpingogram, laparoscopy with hysteroscopic cannulation following a combination of Danazol or GnRH analogs in association with Doxycycline or other antibiotic therapy appears to be the most comprehensive approach in the evaluation and therapy of these patients.

ADDENDUM

Wiedemann (1996) reported that 152 of 172 tubes opened with GnRH agonists. Surrey (2000) reported that GnRH treated patients had a 35% pregnancy rate as compared with 16% without treatment. Proximal tubal blockage may be estrogen sensitive in some infertile patients.

Protocol updated December 15, 2007

- Review hysterosalpingogram films, pictures or videos.
- Cervical culture and sensitivity and cervical chlamydia DFA
- Serum chlamydia trachomatis IgG and IgM blood tests.
- If culture, DFA or IgM is positive, treat and repeat before repeating the hysterosalpingogram.
- Do a pregnancy test with any suggestion of pregnancy.
- Sequential use of three antibiotics over 50 days. Medication is started on day 3 to 5 of the cycle as long as the pregnancy test is negative or the temperature is down.
 - Metronidazole 500 mg, two a day for 10 days then;
 - Ampicillin 500 mg, four a day for 10 days; then,
 - Doxycycline 100 mg, one a day for 30 days.
- Use alternate antibiotic if allergic to any of these.
- Consider condoms during treatment and testing partner.
- If there is evidence of endometriosis, Depot Lupron 3.75 mg is given at monthly intervals for two months. As a less expensive alternative, danazol 200 mg. q.i.d. has also been used.
- Decide about trying to get pregnant for 3 to 6 months or doing hysterosalpingogram.
- When the hysterosalpingogram is done, consider a laparoscopy and hysteroscopy.
- If the cornual occlusion persists, then a hysteroscopic cannulation can be attempted.
- IVF (test tube baby) may be more cost effective than hysteroscopic cannulation.
- Open surgery may be needed when there are fibroids (myomas)