

THE NATIONAL HOSPITAL OF OBSTETRICS AND GYNECOLOGY

Laparoscopy-guided hysteroscopic tubal
catheterization for infertility due to proximal tubal
obstruction

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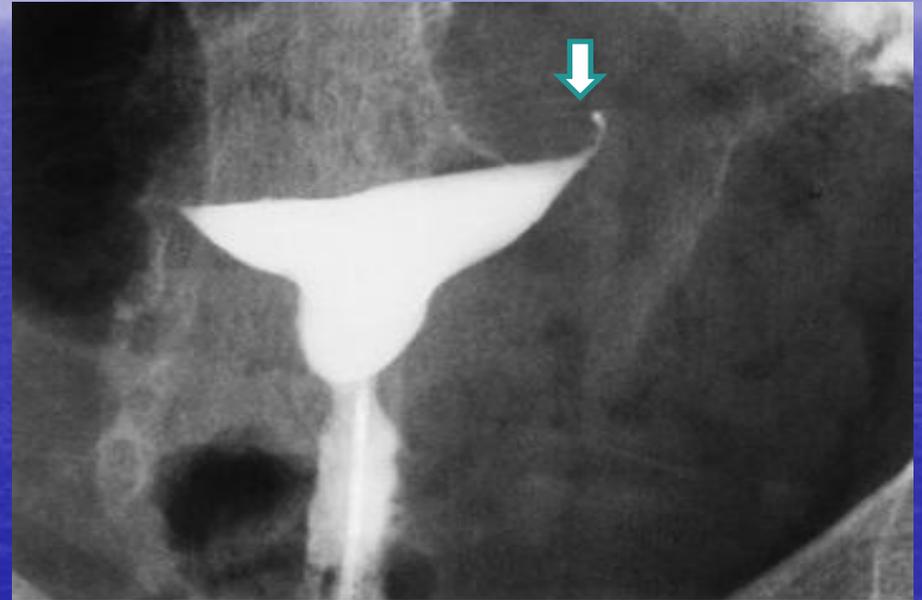
OVERVIEW

- Infertility and female infertility: affect the quality of life of many couples.
- Viet Nam: 7-10%.
- Tubal disease accounts of infertility in women:
 Nguyen khac lieu (1998): 47%
 Pham Nhu Thao (2003) : 59%

Infertility due to proximal tubal obstruction

- The intramural or isthmic segment blocked
- Papaioannou S (2009): 10 - 25% of women with tubal disease
- Viet Nam:
 - Tran Thi Ngoc Ha (2012): 15%
 - Tran Quoc Viet (2004) : 18%

Image of proximal tubal obstruction on HSG



1. Intramural segment blockage 2. Isthmic segment blockage

Causes of proximal tubal obstruction

Zhang (1995):

- 71%: chronic tubal inflammation .
- 29% :
 - ✓ Debris-containing aggregates, Mucosal agglutination.
 - ✓ Cornual polyp, endometriosis, obliterative fibrosis, tuberculosis.

Treatment of proximal tubal obstruction

- Microsurgical Tubocornual Anastomosis
- In vivo fertilisation (IVF)
- Tubal Catheterization

Microsurgical Tubocornual Anastomosis

- Gerard (1999): pregnancies rate 47,4%
- The surgeon must be well trained.
- Results: depends on the skill of each surgeon.

In vivo fertilisation (IVF)

In Viet Nam, Many infertile patients are not financially able to pay.

Tubal Cannulation

- Salpingoscopy and tubal cannulation
- Tubal Catheterization:
 - ✓ Selective Salpingography
 - ✓ Ultrasound-Guided tubal recanalization
 - ✓ Laparoscopy-guided hysteroscopic tubal catheterization

Advantages of the laparoscopy-guided hysteroscopic tubal catheterization

- Limitations in surgical complications: perforation of the fallopian tubes, peritonitis after surgery...
- Degree of damage of the fallopian tube and adnexal Adhesions
- Remove adnexal adhesions
- Affordability
- Easy to implement so it can be widely applied

Studies on tubal recanalization

Gerard (1999):

- Meta-analysis study through MEDLINE searches (1997): Evaluate the effectiveness of four infertility treatments for proximal tubal obstruction:

Methods	Pregnancy rate (%)
Microsurgical Tubocornual Anastomosis	47,4
Macrosurgical Tubocornual Anastomosis	22,1
Selective Salpingography	28,8
Hysteroscopic Transcervical Tubal Cannulation	48,9

Studies on the laparoscopy-guided hysteroscopic tubal catheterization

Jacqueline. CHUNG (2012):

- 70 patients with proximal tubal obstruction
- Successful recanalisation rate: 72 %
- Pregnancy rate : 37,8%
- Ectopic pregnancy: 2%
- The overall mean time to become pregnant: 10.5 8.9 tháng

Studies on the laparoscopy-guided hysteroscopic tubal catheterization

Hai Yan Hou (2014):

- Pregnancy rate after surgery :
37,6% after one year
43,7% after tow year
- Recommendation:

The first choice for infertile patients due to proximal tubal obstruction

What patients are indicated for tubal catheterization ?

- Infertility patients with proximal tubal obstruction
- Under the age of 40
- Distal tubal fallopian are not yet severely damaged
- There is no severely pelvic adhesion on laparoscopy

Implementation process

Infertility patients with proximal tubal obstruction (HSG)

Laparoscopy

Degree of damage of Distal tubal fallopian

severely

No catheterization

Proximal tubal obstruction

Tubal catheterization

Follow up to get pregnant

severely pelvic adhesion

No catheterization

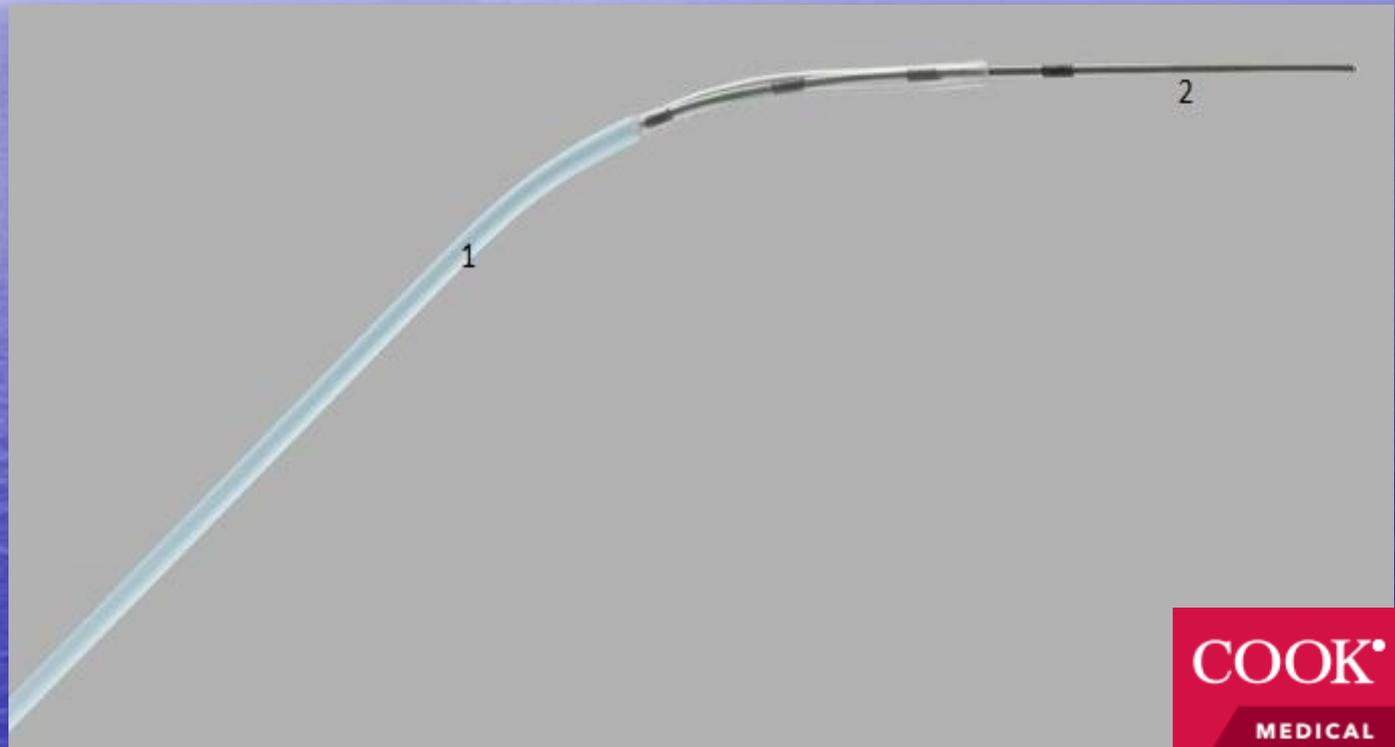
Instruments for Tubal catheterization

Optics 30 degrees with integrated catheter path



Instruments for Tubal catheterization

Catheter - Guidewire

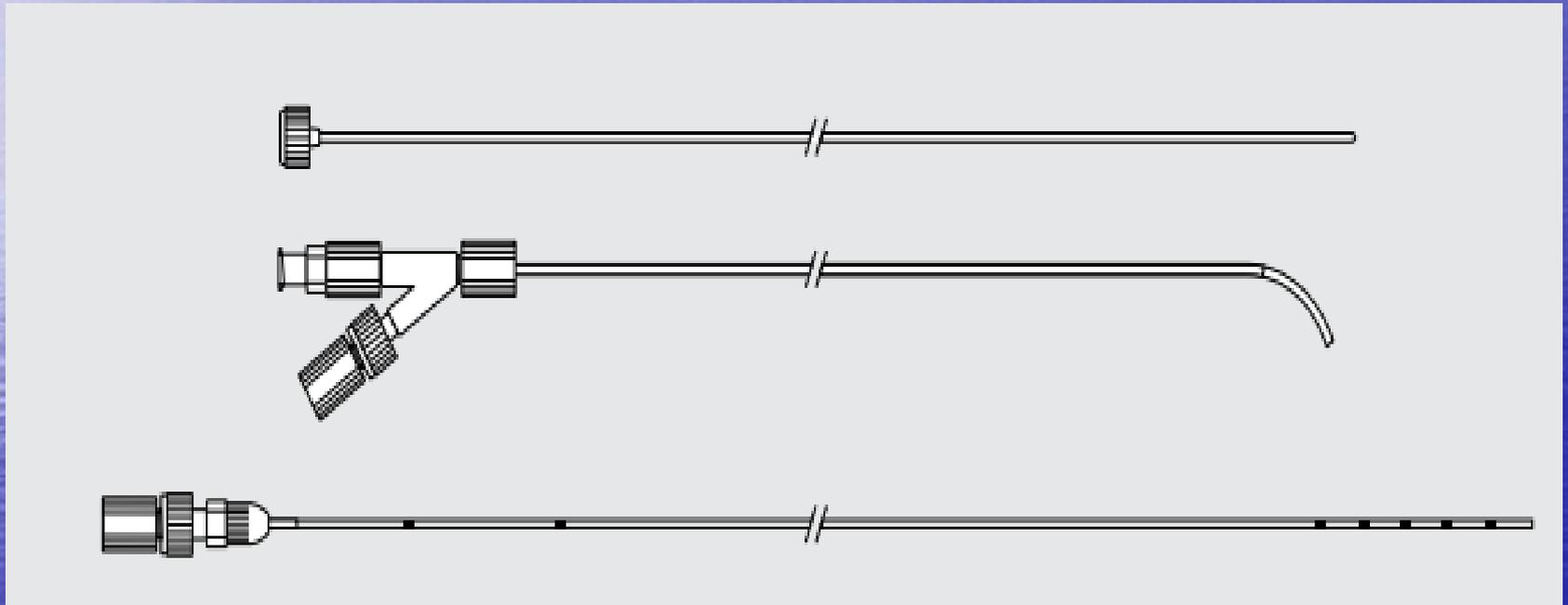


Supplier : Cookmedical - USA

Name: Modified Novy

Instruments for Tubal catheterization

Catheter - Guidewire



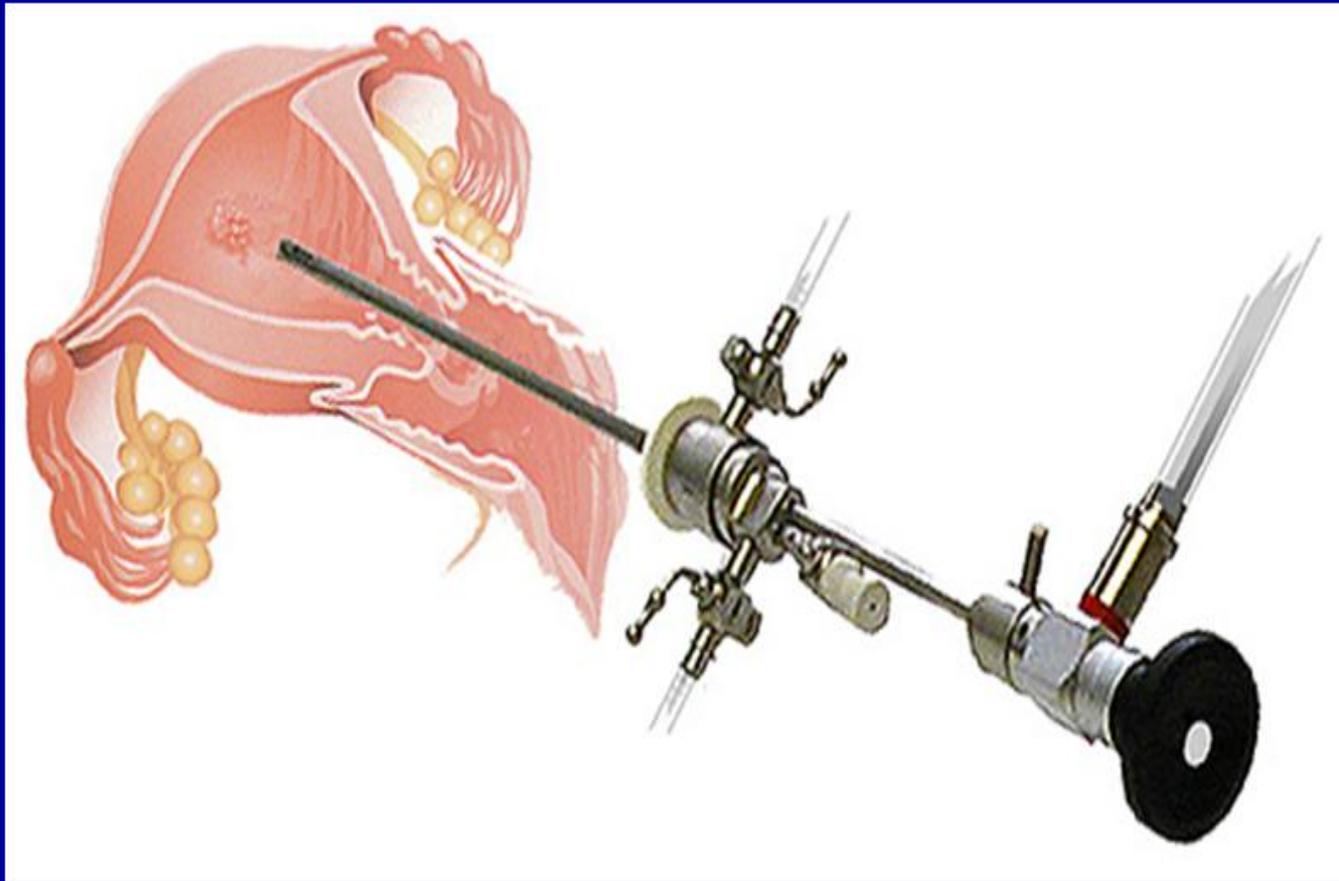
Surgical procedure

Step 1: Laparoscopy

- Evaluate Degree of damage of Distal tubal fallopian and pelvic adhesion
- Evaluation of tubal obstruction: proximal or distal

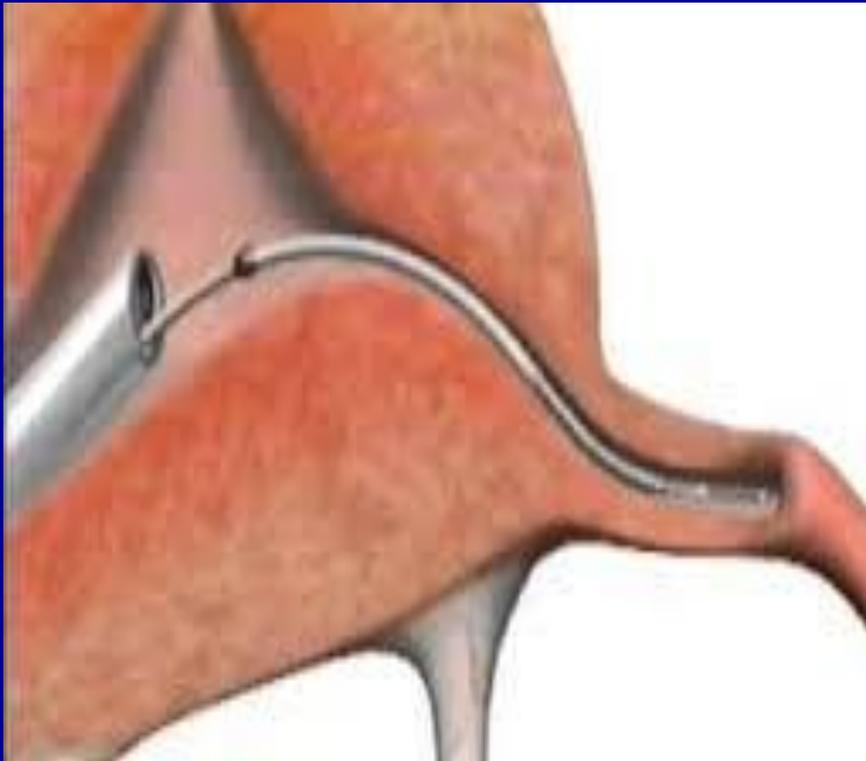
Surgical procedure

Step 2: Hysteroscopy and tubal catheterization



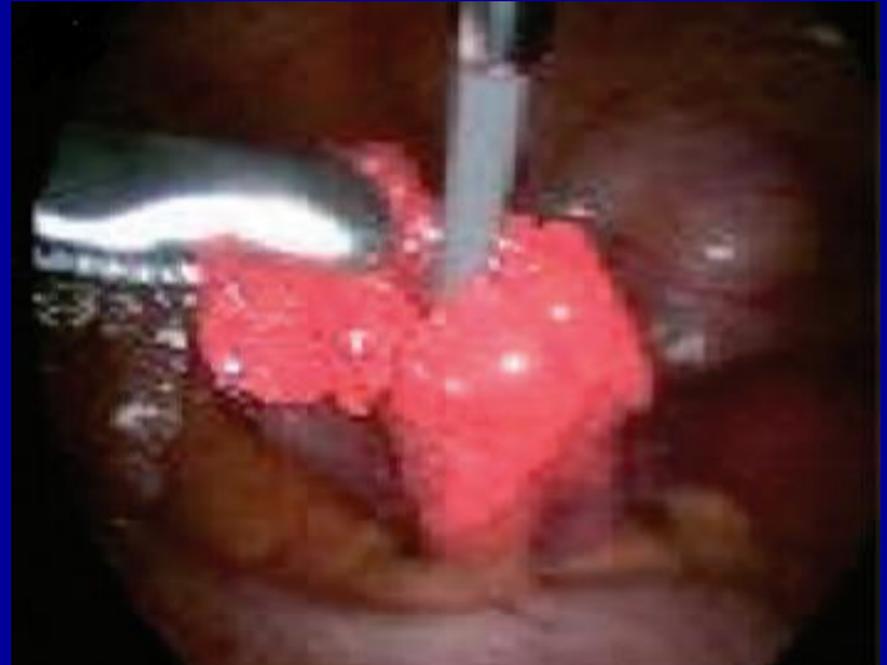
Surgical procedure

Hysteroscopy and tubal catheterization



Surgical procedure

Laparoscopy control



Surgical procedure



Surgical procedure

Evaluate results immediately after surgery

- Successful recanalisation: catheter head through the obstructed segment, Xanmethylen flows through the fimbria
- Recanalisation Fail : catheter head not through the obstructed segment
- Perforation

VIDEO



RESULT

- Number of patients: 7 patients
- Successful recanalisation rate: 5/7 (71%)
- Tubes successfully recanalized: 9/13 (69%)
- Successful recanalisation patients will follow up with a natural pregnancy for 1 year after surgery.



Thank you very much