

# Recent Developments in the Transmission of Human Life

19-21 January 2023

Berlin, Germany

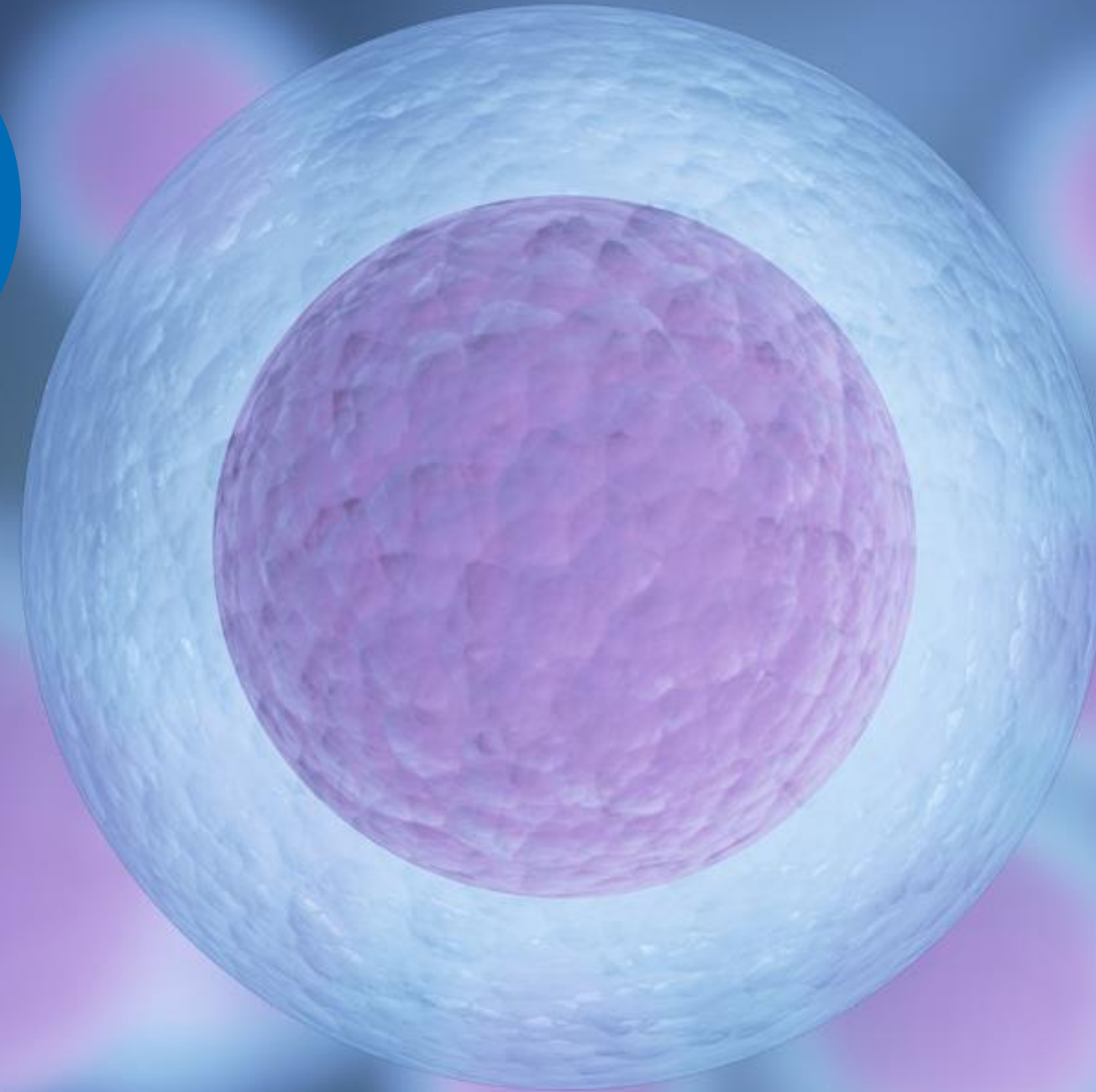
Welcome to all Participants



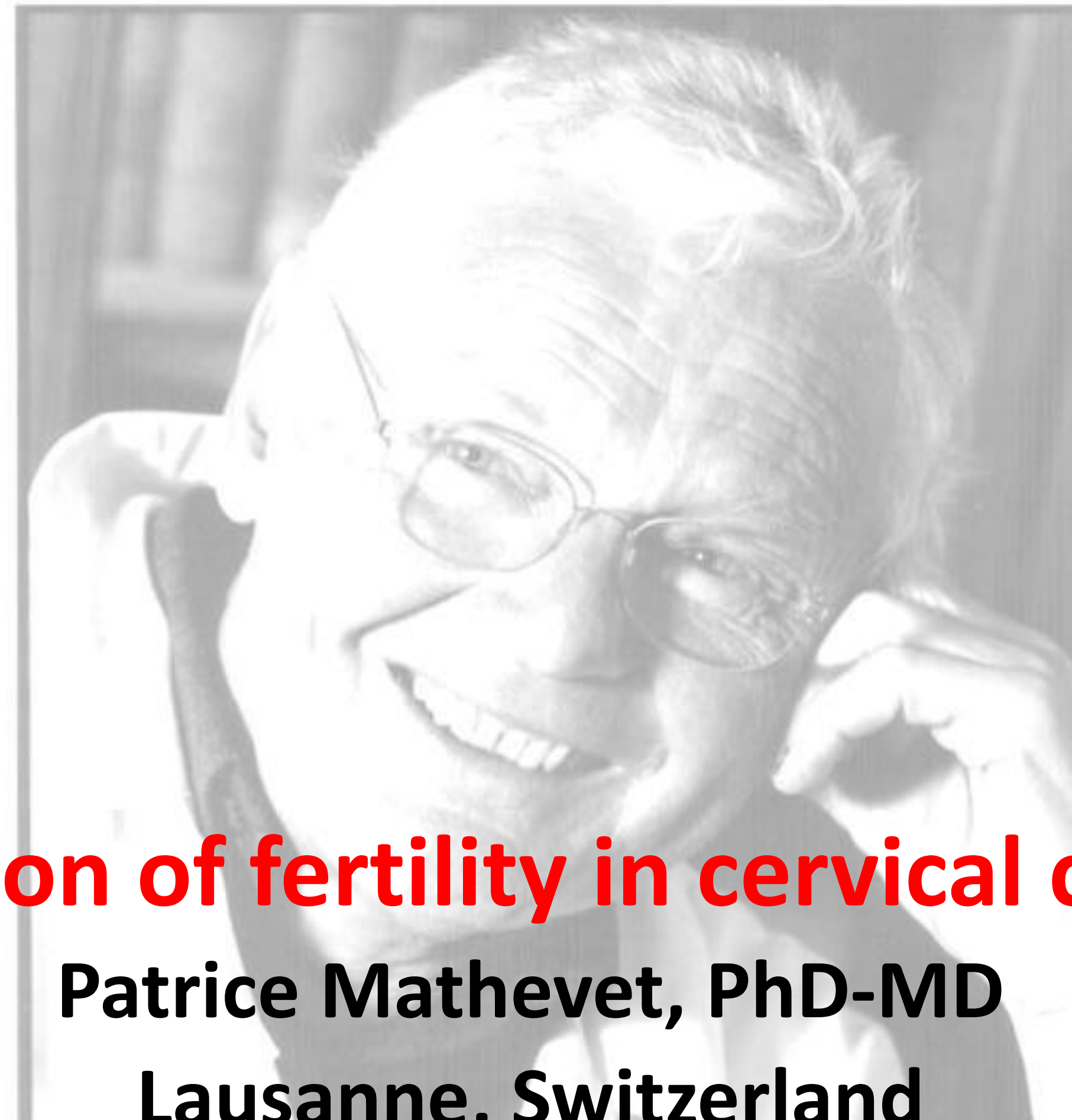
# Recent Developments in the Transmission of Human Life

Preservation of fertility in  
cervical carcinoma

Prof. Mathevet







## Preservation of fertility in cervical carcinoma

**Patrice Mathevet, PhD-MD**

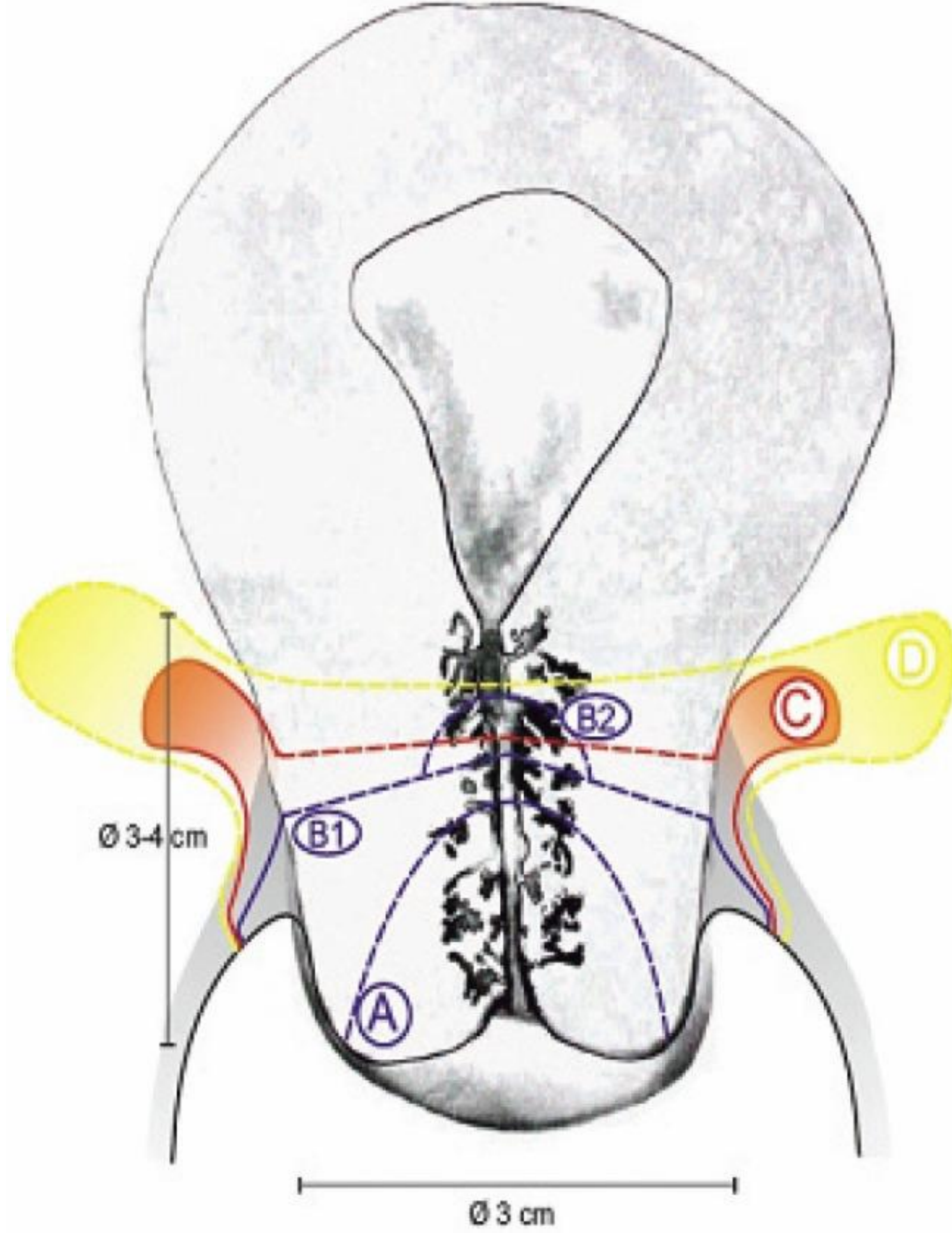
**Lausanne, Switzerland**

# Faculty Disclosure

**I have no potential conflict of interest to declare**

# Fertility sparing therapy (FST)

- Is an oncologic valid alternative to radical hysterectomy for young patients with usual type cervical cancer <2cm.
- The aim of FST must be the resection of invasive tumor with adequate free margins and preservation of the upper part of the cervix.
- Before starting FST, consultation at an onco-fertility center and discussion in a multidisciplinary tumour board is recommended.



**A: conization**

**B1: trachelectomy**

**B2-C: proximal radical trachelectomy (Piver 2).**

**B2-D: distal radical trachelectomy (Piver 3)**

# FST

- Pelvic MRI and/or expert sonography are mandatory to measure remaining (after cone biopsy) cervical length and, non involved cervical length.
- Negative pelvic lymph node status is the precondition for any FST. Pelvic lymph node (sentinel lymph node: SN) staging should always be the first step. Identification of SN and its ultrastaging is highly recommended.
- Lymph node staging is not indicated in stage T1a1 LVSI<0.



# FST for stage Ia cervical cancer

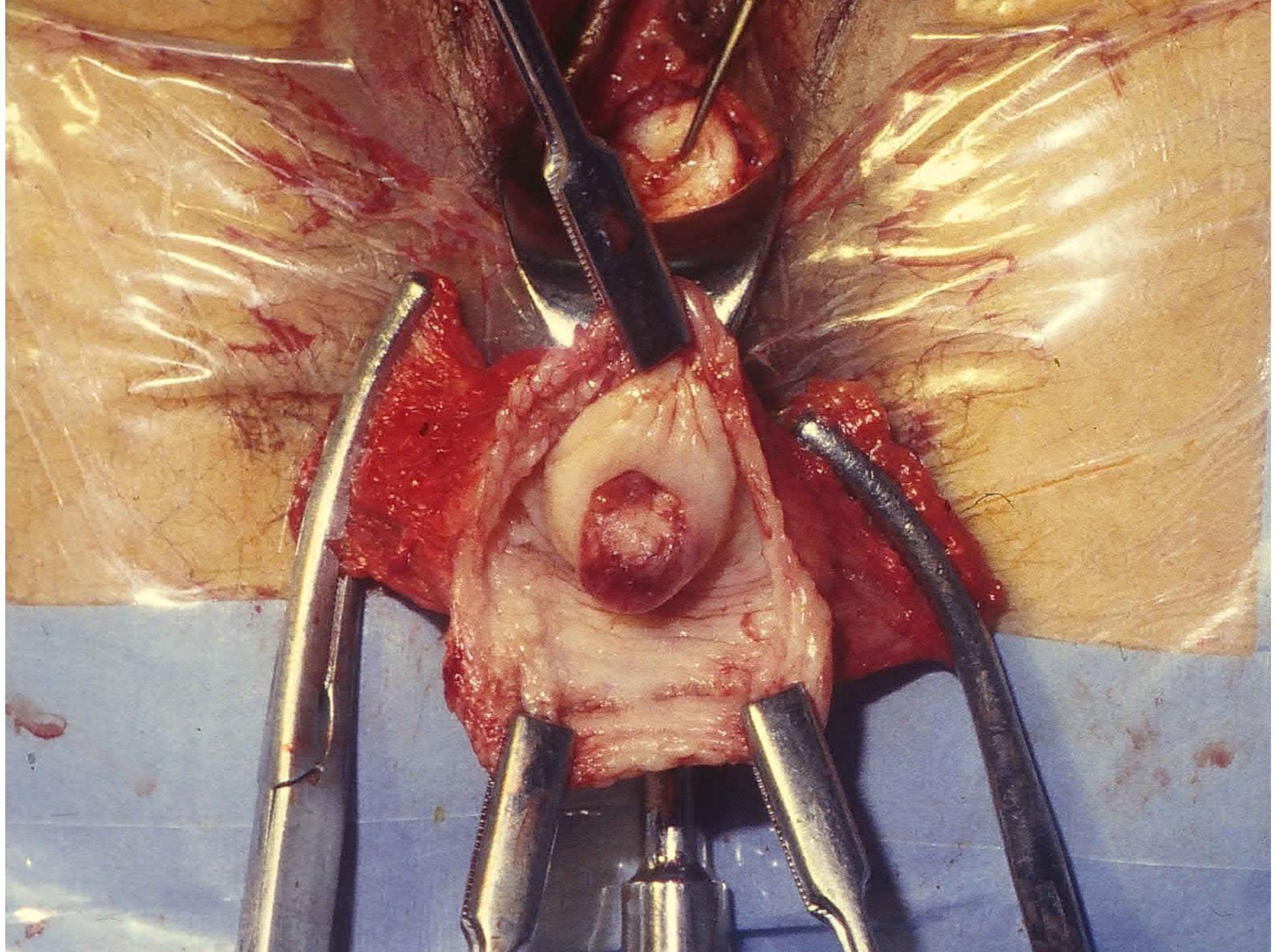
- Conization and simple trachelectomy are adequate fertility sparing procedures for stages T1a1 and T1a2, lymph node-negative (imaging), LVSI-negative patients.
- Conization or simple trachelectomy after SN staging, can be considered for T1a1 and T1a2, lymph node-negative, LVSI positive patients and T1b1 lymph-node negative, LVSI negative patients.
- Radical trachelectomy is still an option.



# Radical Trachelectomy

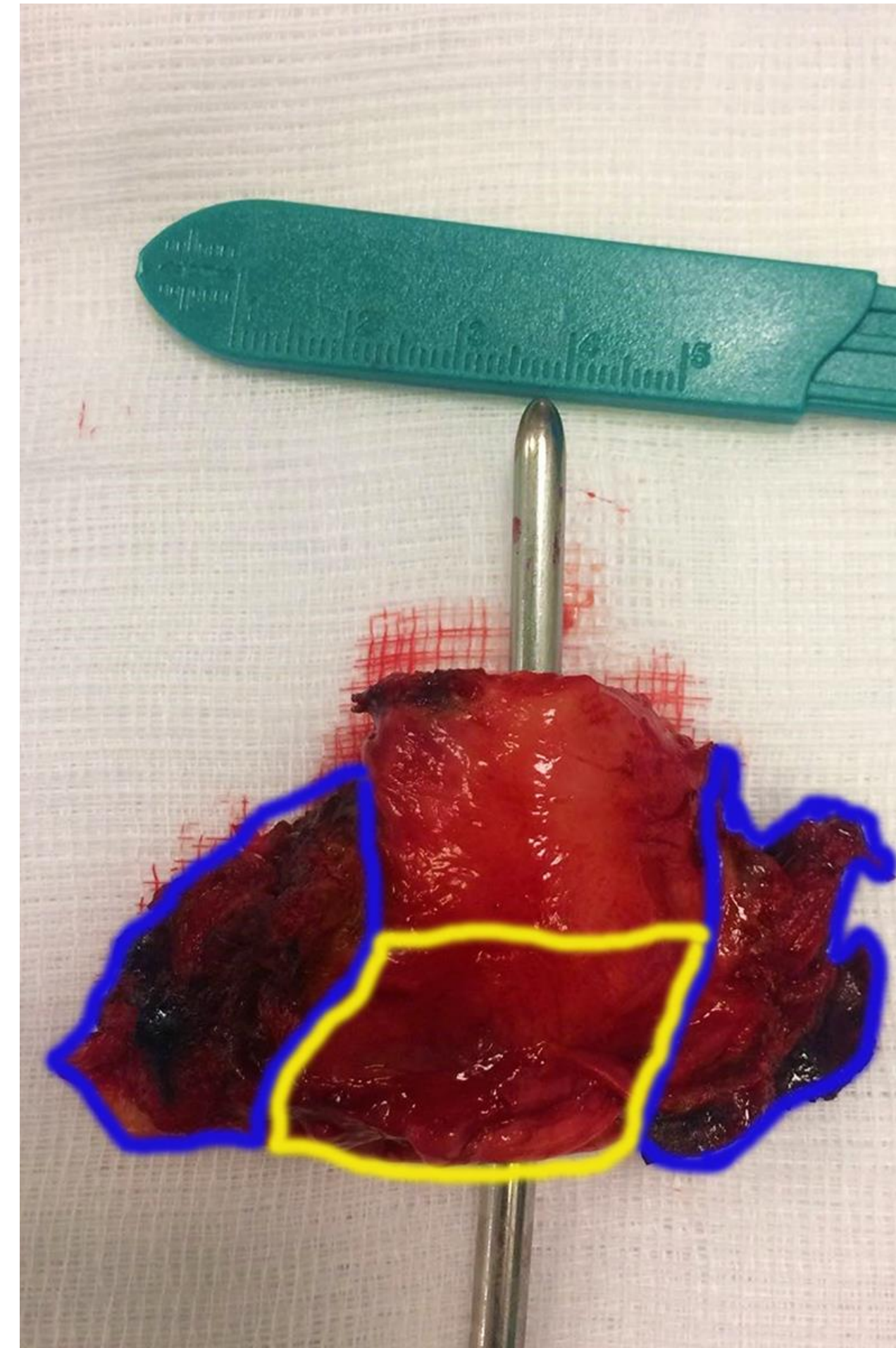
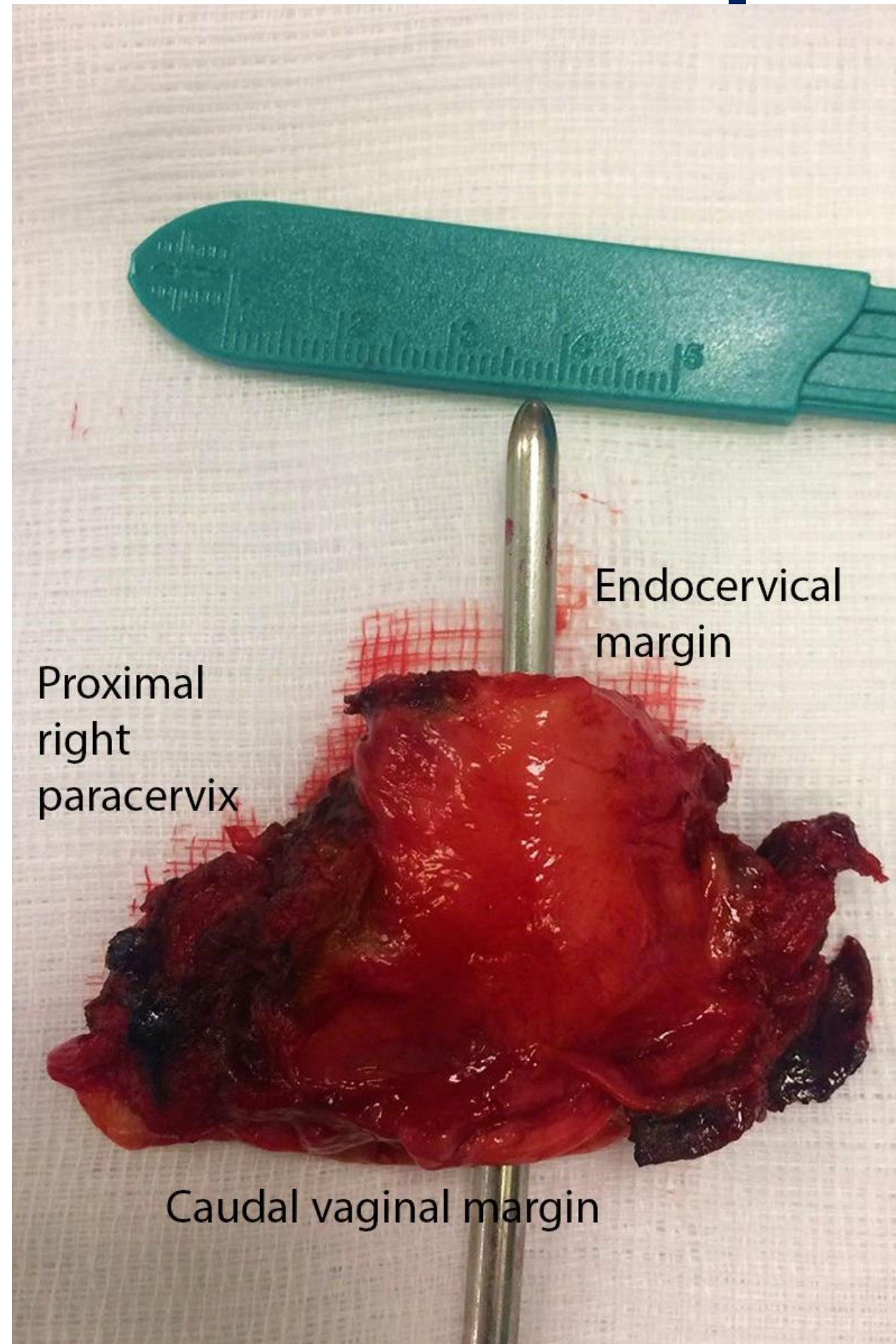
- **Is it safe ?**
- **Is the oncologic risk increased in comparison with a traditional treatment ?**
- **What are the chances to have a healthy baby after a radical trachelectomy ?**
- **Who may benefit from this operation ?**







# Vaginal radical trachelectomy specimen





# **Our experience: 1986-2011**

- 160 radical trachelectomy performed (mean age = 31.5 ys).
- Initial stage (FIGO 2009):
  - IA1(+LVSI) - Ia2 = 38 cases (24%)
  - IB1 = 122 cases (76%)
- Histologic type :
  - Squamous cell carcinoma = 123 cases (77%)
  - Adenocarcinoma = 35 cases (22%)
- Tumoral diameter :
  - < 2 cm = 130 cases (81%)
  - ≥ 2 cm = 30 cases (19%)
- LVSI = 51 cases (32%)



# **160 Radical Trachelectomies: Recurrences**

- **9 recurrences (6 %),**
  - **1 neuroendocrine carcinoma with distant metastasis**
  - **3 recurrences in parametrium**
  - **4 lymph-nodal metastasis (lateropelvic, common iliac, para-aortic)**
  - **1 centro-pelvic recurrence (on uterine isthmus): multifocal adenocarcinoma ?**
- **6 deaths, 2 patients free of disease**

# **Risk of Recurrence**

**In all : 5 %**

**Diameter < 20 mm : 1 - 2 %**

**Diameter > 20 mm : < 20 %**

**CHANCES of PREGNANCY :**

**- Pregnancy = 80%**

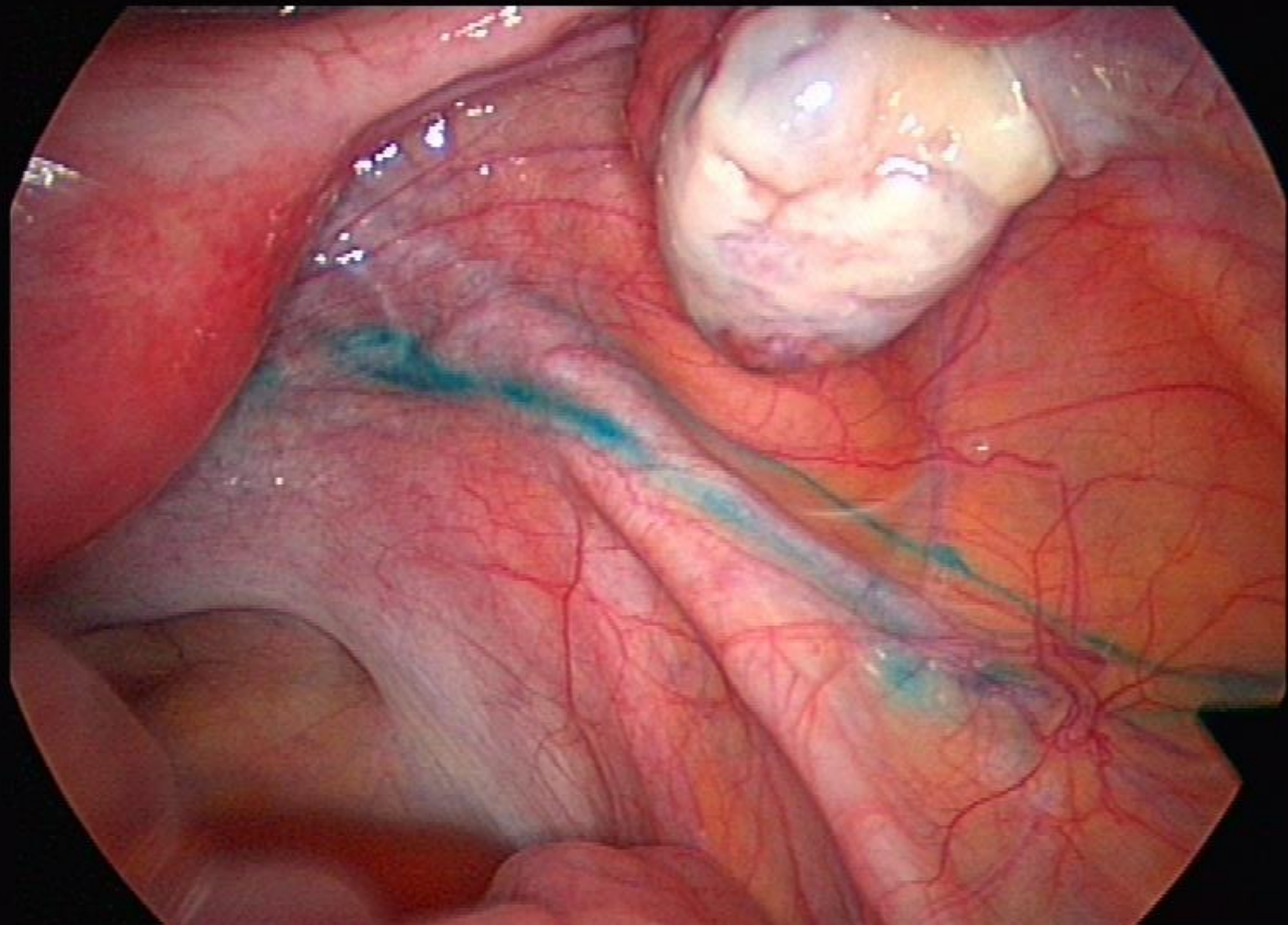
**- Birth of a living baby = 65%**

# **Eligibility criteria for performing Dargent's operation**

1. Squamous cell carcinoma, adenocarcinoma or adenosquamous carcinoma.
2. Stage IA2 to IB1 (FIGO 2019), tumor diameter < 2 cm.
3. Willing to preserve her fertility.
4. Pre-operative MRI.
5. Limited endocervical extension at colposcopy or MRI.
6. Vaginal approach feasible.

**Is radical trachelectomy safe in case  
of LVSI ?**





# **Is LVSI a contra-indication for radical trachelectomy ?**

- **Our experience shows that LVSI is not a prognostic factor of recurrence.**
- **Interest in the sentinel node (SN) technique: ultrastaging of the SN may find micrometastases that are contra-indication for fertility preservation.**
- **So, in case of LVSI, the SN technique may help in the management choices of the lesion.**



**Which is the optimal approach for radical trachelectomy after the LACC study ?**

# Optimal approach

- No more robotic or laparoscopic approaches.
- Abdominal approach:
  - increase the risk of adherences
  - and make the uterine artery preservation difficult.
- Vaginal approach:
  - Closure of the vagina
  - Limited risk of tumor spillage



**Is parametrium resection required for  
early cervical carcinoma ?**

# Reduction of the radicality of the surgery

Author	Nb cases	Type of surgery	Adjuvant	Recurrences	Preg.
Plante M.	16	Simple Trach	0	0	8
Andikyan V.	10	Conization + SN	0	0	3
Ditto A.	22	Conization + LN dissection	4 hysterec.	0 but 2/3 N+	8

The prematurity rate was significantly lower in patients who had undergone a simple trachelectomy/cone resection compared with other conservative surgeries (Review of the literature, Bentivegna E, Feril Steril 2016).

# ConCerv study

Schmeler KM, et al. Int J Gynecol Cancer 2021

- **Eligibility criteria included:**
  - FIGO 2009 stage IA2–IB1
  - Squamous cell (any grade) or adenocarcinoma (grade 1 or 2)
  - Tumor size <2 cm
  - No lymphovascular space invasion
  - Depth of invasion <10 mm
  - Negative imaging for metastatic disease
  - Negative conization margins.

# ConCerv study

Schmeler KM, et al. Int J Gynecol Cancer 2021

- 100 evaluable patients
- Median age = 38 years.
- Stage IA2 (33%) and IB1 (67%).
- Surgery =
  - 44 cases of conization followed by lymph node assessment.
  - 40 cases of conization followed by simple hysterectomy with PLND.
  - And 16 inadvertent simple hysterectomy followed by PLND.



# ConCerv study

**Schmeler KM, et al. Int J Gynecol Cancer 2021**

- Positive lymph nodes were noted in 5 patients.
- Residual disease in 1/40 of the post-conisation hysterectomy specimen.
- Median follow-up = 36.3 months (range 0.0–68.3).
- 3 cases of recurrent disease within 2 years = cumulative incidence of 3.5% (0.9% to 9.0%).
- 14 pregnancies have been reported among 11 of 40 women (27.5%) who underwent cervical conization and PLND: 13 term births and 1 late abortion at 22 WoGA.

# ConCerv study

Schmeler KM, et al. Int J Gynecol Cancer 2021

- Positive lymph nodes were noted in 5 patients.
- Residual disease in the post-conisation hysterectomy specimen was noted in 1/40.
- Median follow-up = 36.3 months (range 0.5 to 107.5)
- 3 cases of recurrent disease within 5 years = cumulative incidence of 3.5% (0.9% to 6.1%)
- 14 pregnancies have been reported among 11 of 40 women (27.5%) who underwent cervical conization and PLND: 13 term births, 1 late abortion at 22 WoGA.

**Need for prospective study with large population**

**Is fertility preservation possible for more advanced cervical carcinomas ?**

# **Fertility preservation in cervical cancer larger than 2-3 cm in diameter**

- Our experience with **neo-adjuvant chemotherapy (NACT)** before radical trachelectomy (in order to decrease the tumoral volume).
- **19 patients** treated with a mean age of **28 years** old.
  - 11 squamous carcinomas and 8 adenocarcinomas.
  - 10 stages IB2, 4 stages IIA1 et 5 stages IB3.
  - **Tumoral diameter : 29 to 51 mm** (mean = 37 mm).
  - **10 complete responses**, 7 PR and 2 stable diseases.
  - All cases treated with radical trachelectomy.
  - Median follow-up 79 months: 2 (10,5%) early recurrences (parametrium and in the Douglas pouch),
  - 4 healthy babies

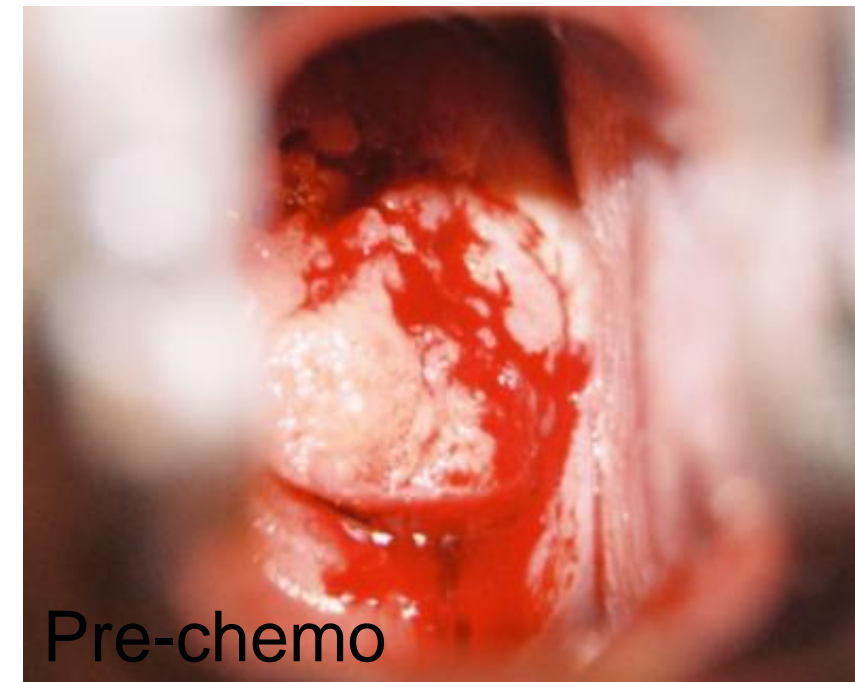


# Neo-adjuvant chemotherapy before Dargent's operation

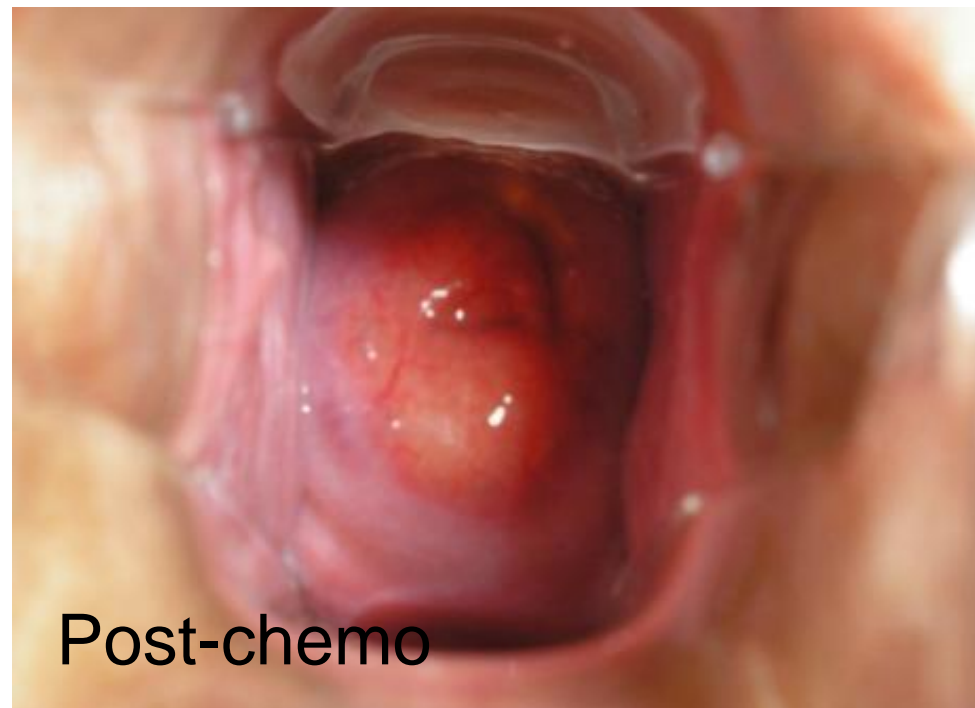
Patient 1: adenocarcinoma  
Stage IB 4cm



Patient 2: squamous cell carcinoma  
Stade IB2 4,5 cm



Benefit – risk ratio of this option has to be evaluated.



Gynecol Oncol 2011, 122:484-90.



# FST for cervical cancer more than 2 cm (ESGO)

- ART and neoadjuvant chemotherapy followed by vaginal trachelectomy are described options for FST
- There are now sufficient data to demonstrate that neoadjuvant chemotherapy followed by vaginal RT has similar oncological results as abdominal RT alone, but induce better pregnancy rate.
- Therefore, this approach should be the preferred one and performed in reference centers with a prospective evaluation of cases.

# FST for more advanced cervical cancers

- Different propositions for fertility preservation should be discussed such as:
  - ovarian transposition,
  - oocyte-, embryo- or ovarian tissue preservation
  - and egg donation.
- The goal of the fertility preservation should be to offer the most efficient approach related to the legal aspects of the country while not increasing the oncological risk.



# Fertility preservation for cervical cancer

## Take-home messages

- ✓ Requirement for a full information of the patient and a share decision.
- ✓ Radical trachelectomy is as efficient as traditional surgical treatment of early stage cervical carcinomas
- ✓ Only 1 prognostic factor identified : tumoral volume.
- ✓ Future evolution:
  - ✓ less radical surgery for early tumors ?
  - ✓ benefit of a neo-adjuvant chemotherapy for more advanced carcinomas ?



THANK YOU



[WWW.SCIENTIFICSEMINARS.COM](http://WWW.SCIENTIFICSEMINARS.COM)