# „Pre-selection and qualification of the patients for prenatal myelomeningocele closure – Polish experience”

**Gynecology Clinical Care Unit, Obstetrics and Oncological Gynecology of Silesian Medical University Bytom, Poland**

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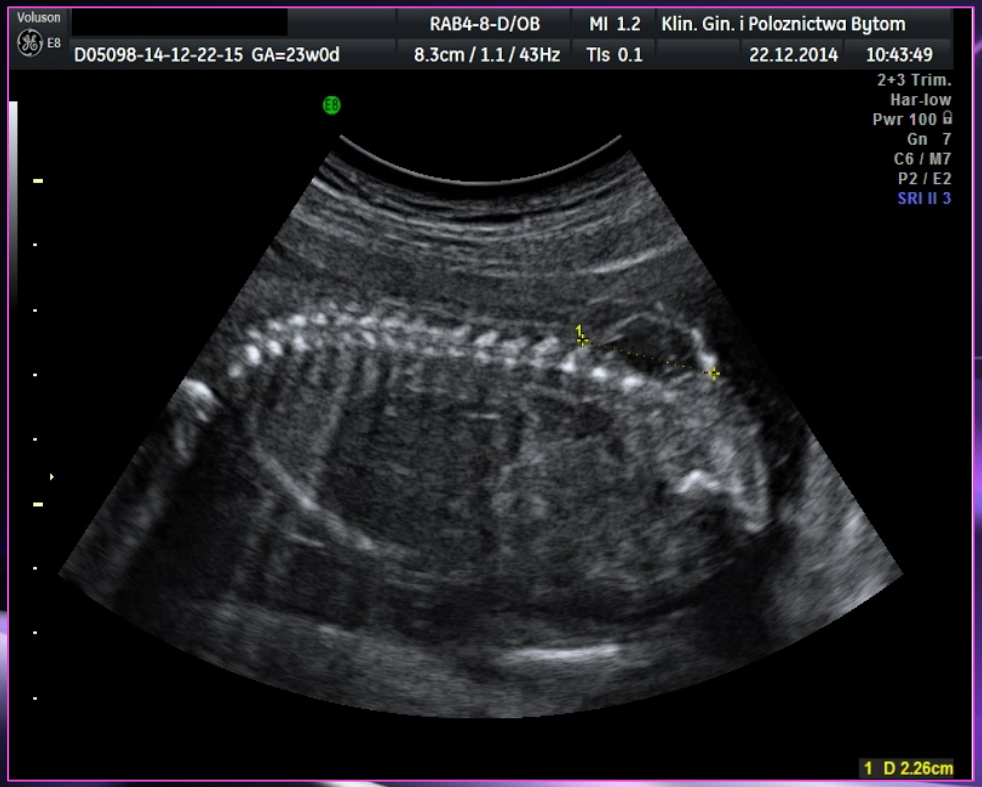
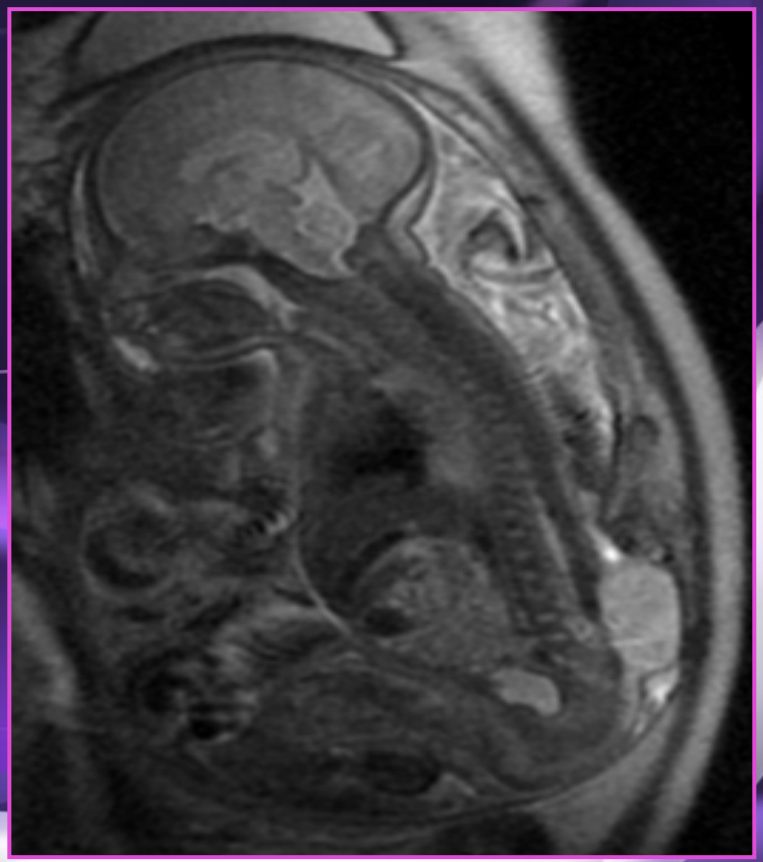
# Introduction

Before the year 2005 diagnosis of fMMC in Poland tended most of the patients to pregnancy termination.

Only a very few of them decided to continue their pregnancy and repair MMC postnataly.

For both patients and doctors possibility to repair fMMC in utero was more like a vision of a distant future...

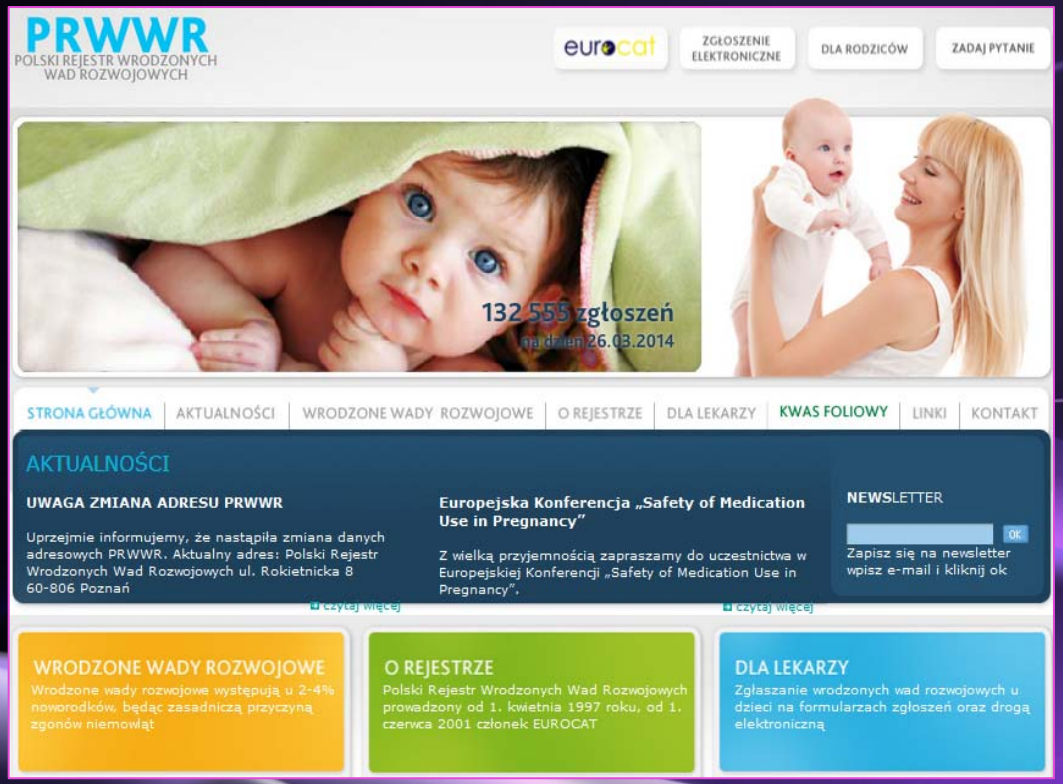


# Introduction

Polish Registry Of Congenital Inborn Defect claims that frequency of MMC is around **2/1000** newborns.

There are around **200** new cases of MMC per year.

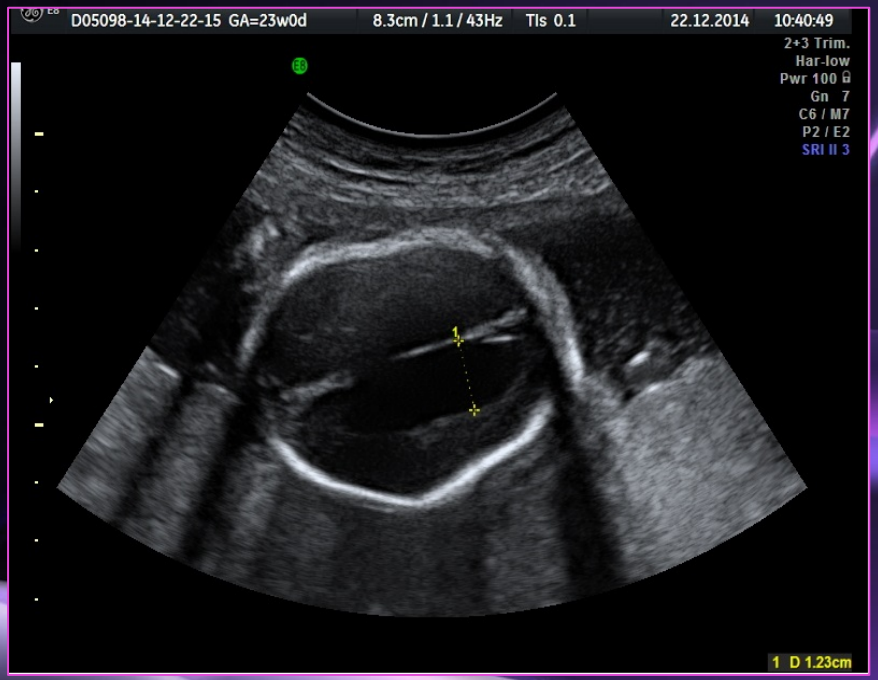


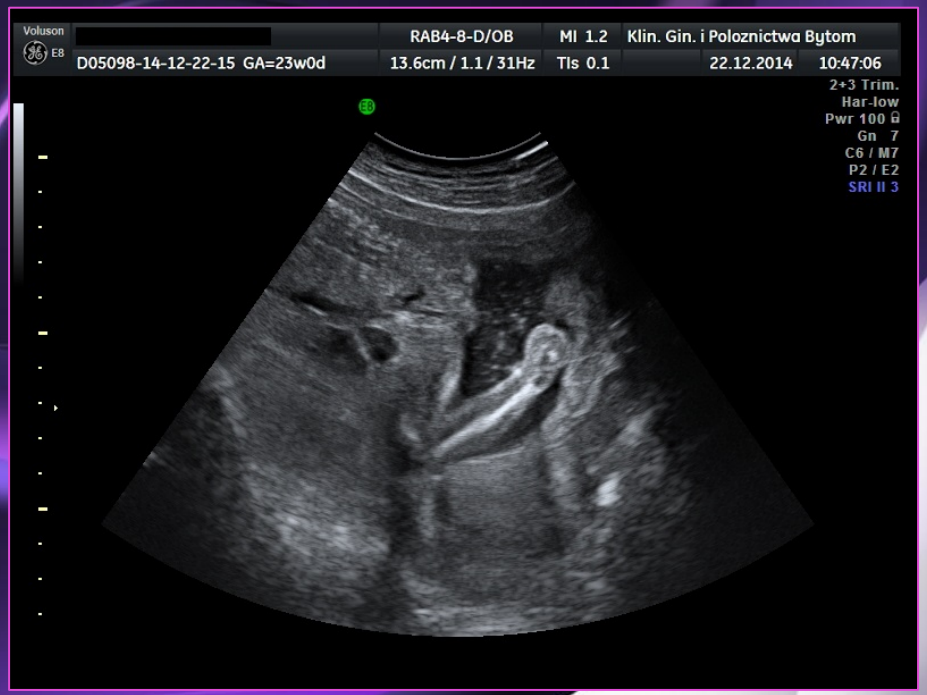

# Introduction

In the year 2005 the first performed IUMR in Department of Gynecology, Obstetrics and Oncological Gynecology of Silesian Medical University in Bytom has contributed to an increase of the inflow of native and foreign patients with fMMC.

## Patients and Methods

Since the year 2005 Perinatal Centers of the 3rd degree of reference and FMF certified USG diagnostic centers in Poland conducted 1st and 2nd trimester screening for early fMMC detection.



## Patients and Methods

fMMC detection

Patient informed about IUMR *or ter

Patient informed only repair

Patien depar inform

The pr

- 1 out of 7 search results in polish google mentions possibility of in utero fMMC repair…
- Polish wiki doesn't mention about IUMR in MMC section
- Some „qualified" specialist such as gynecologists, surgeons, neonatologists claims that IUMR is an experimental method…

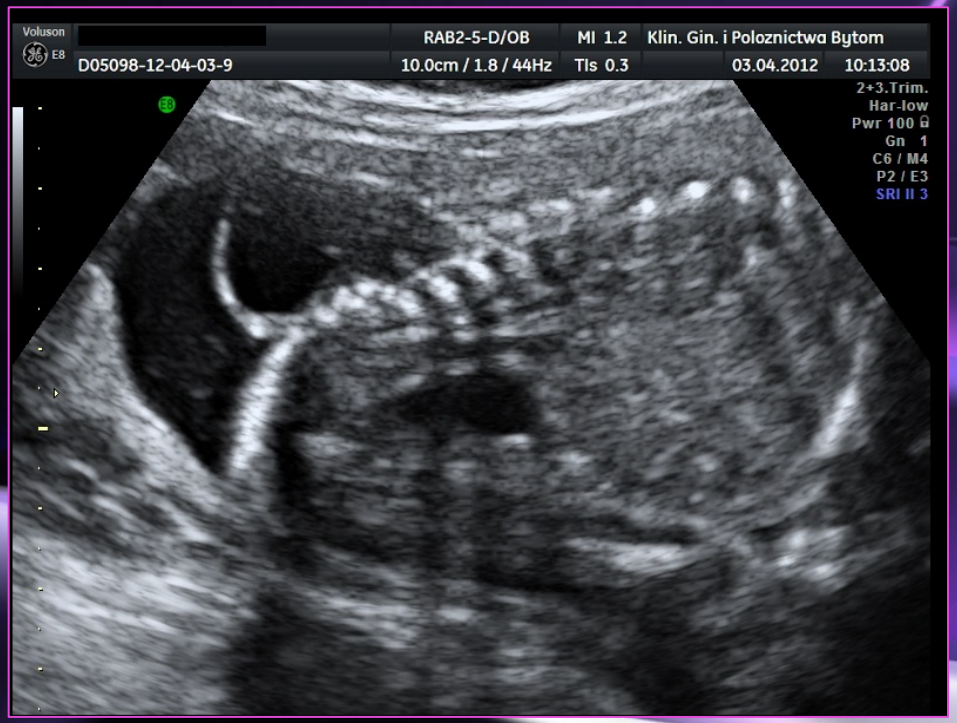
Final qualification

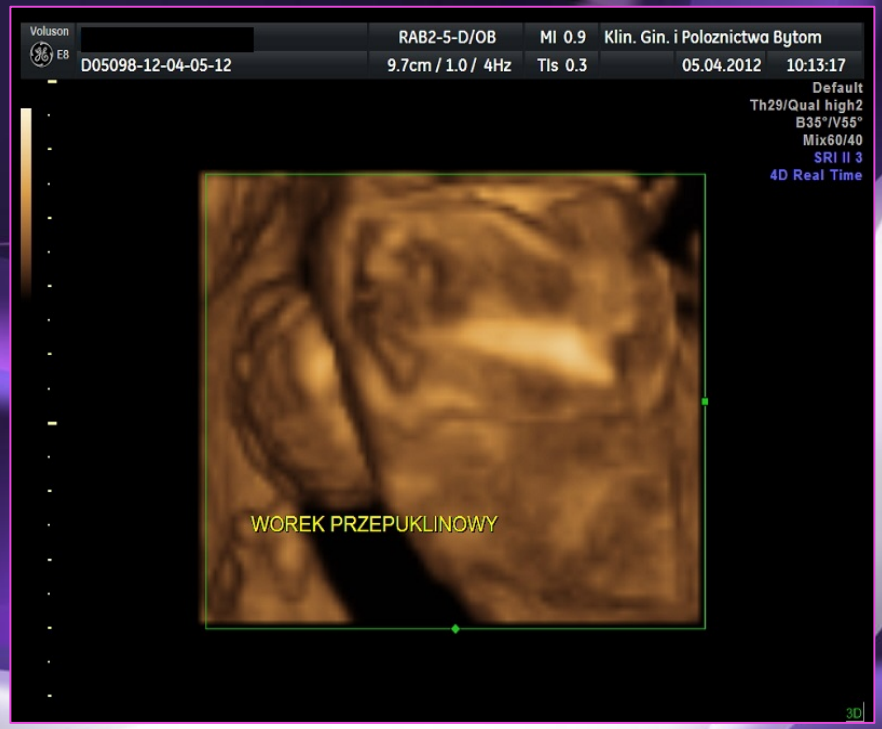
IUMR

# The preliminary qualification

**Was performed by the Team of doctors who analyzed on-line patient documentation, gynecological history and USG prints or scans delivered by patients.**

**Patients who choose to undergo IUMR were directed to our department so we could perform further examination and final qualification.**



## Final qualification

**Was based under following inclusion criteria:**

- **gestational age between 20w0d and 25w6d confirmed by USG 1st trimester scan**
- **signleton pregnancy**
- **mothers age ≥18 years,**
- **Hindbrain hernia of 1st or 2nd degree confirmed by MRI and USG**
- **lateral ventricle diameter ≤17 mm**
- **normal karyotype confirmed by amniocentesis or FISH**
- **lack of other inborn defects**
- **MMC localization between L1-S1.**

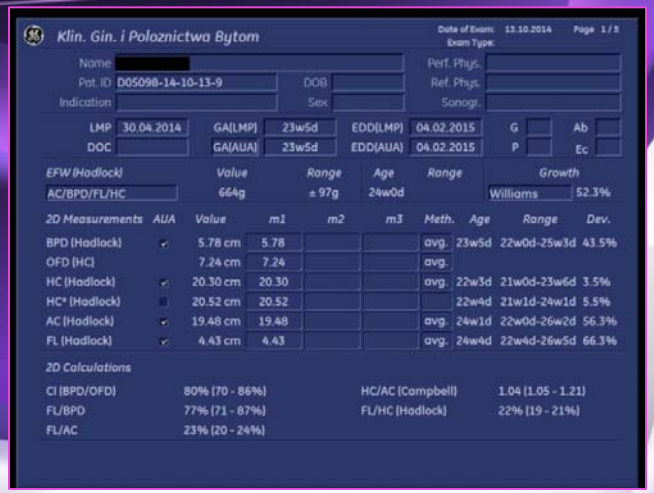
# Final qualification – exclusion cryteria

| | |
|---|---|
| **Utero-placental-fetal unit** | |
| Kyphosis > 30°, oligohydramnios, placenta praevia, single umbilical artery, myomas, previous hysterotomies , classical cesarean section, uterine malformation, short cervix ≤ 20mm | |
| **Maternal** | |
| Burdened obstetric history | Premature deliveries in anamnesis, cesarean section >1, multipara >3, eclampsia in previous pregnancy |
| Internists | Diabetes mellitus, arterial hypertension, BMI>35 kg/m², thrombophilia, chronic uterine tract infections |
| Active infectious agents | HBV, HCV, HIV, TORCH infection, pathological bacterial flora in cervical canal, upper respiratory tract infection |
| Anesthesiological | Contraindications to anesthesia- spinal deformities |
| **Other** | |

# Final qualification

**During patients stay at our department we performed:**

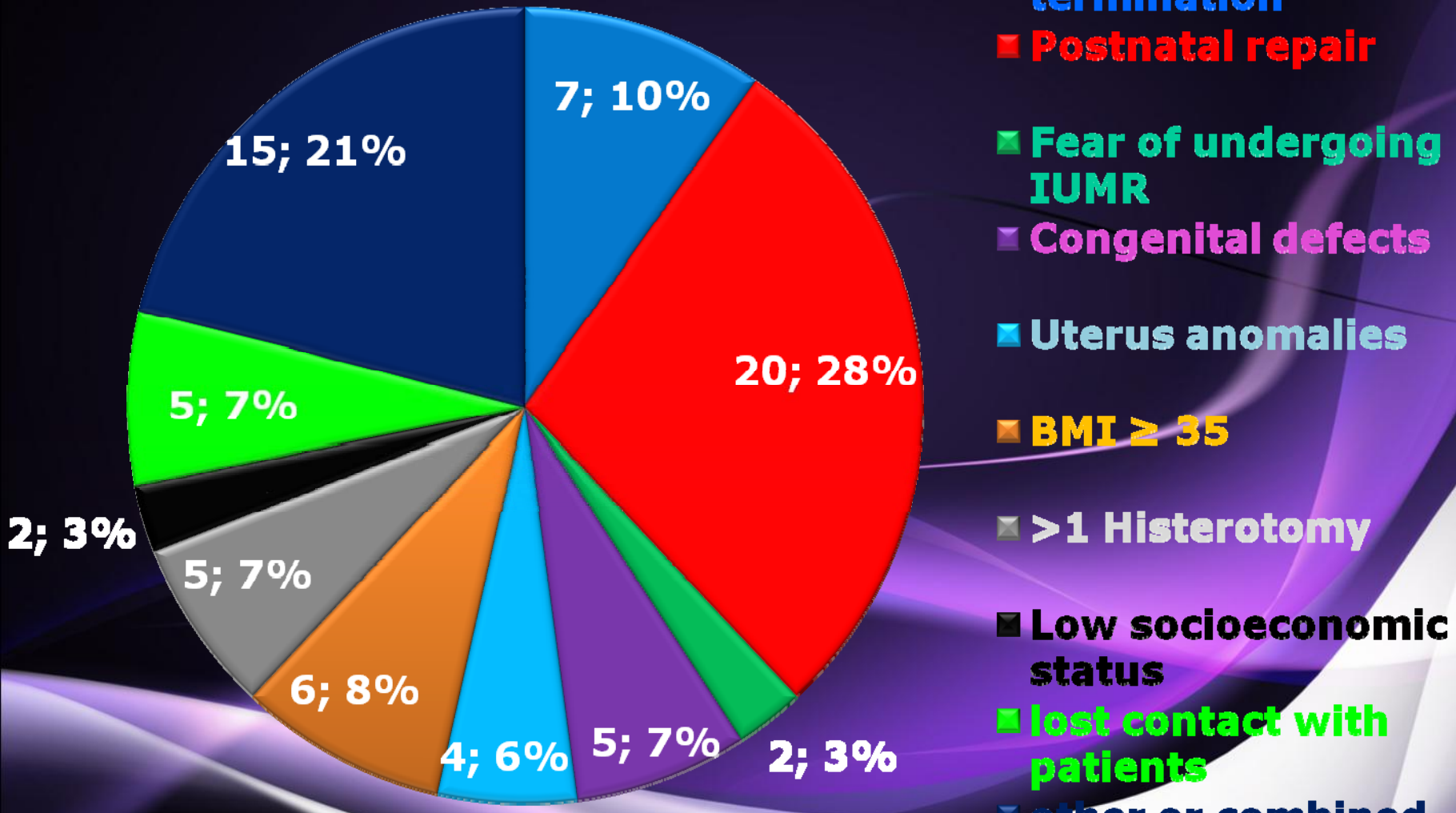
- **USG, MRI for propper MMC and Hindbrain hernia localization**
- **Ultrasound, Doppler, Fetal ECHO – cardiological anomalies and fetus well-beign, cervical lenght**
- **Amniocentesis for karyotype check up.**
- **Blood samples – TORCH examination and standard lab tests for surgery**
- **Specialist consultation: Gynecologist, Children Surgeon, Neonatologist, Anesthesiologist, Internist, Psychologist other if needed.**

## Results of preliminary selection

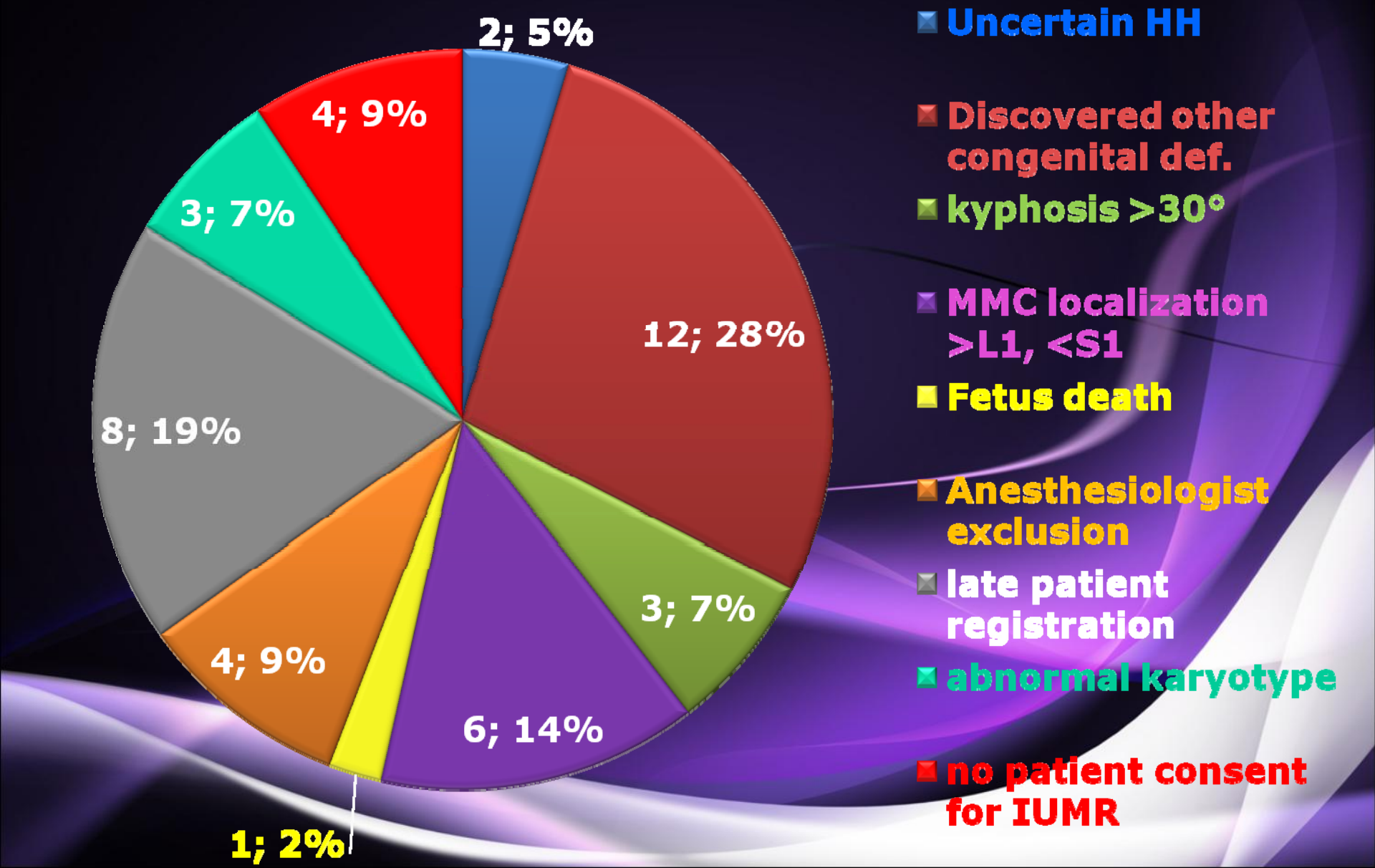
**Out of 185 patients that contact us we selected 114 patients that met the inclusion cryteria.**

**The main reasons of exclusion were:**



# Results of final selection

**Out of 114 patients we excluded 43 patients due to:**



## Two step Qualification:

- Provides better organization of a large number of patients.
- Combining USG and MRI helps to find cases which does not meet qualification criteria.
- Reliable and detailed diagnostic procedure as well as proper information corresponding to individual cases helps us to emerge a group of aware and determined patients who wish to undergo IUMR.



# Thank You for Your attention

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