

# Indications and Clinical Consequences of Frozen Section Examination of the Placenta

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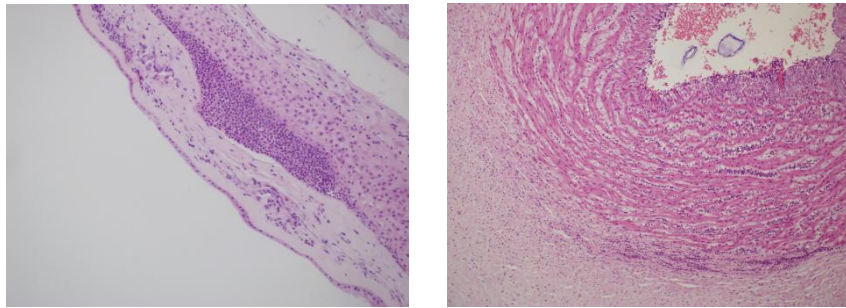
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## Introduction

Neonatal sepsis represents a relevant clinical problem but the empirical administration of antibiotics can impair the formation of the microbiota with relevant consequences in later life. Frozen sections examination (FSE) of the placenta allows a prompt diagnosis reducing unnecessary use of antibiotics.

## Materials and methods

Retrospective study on frozen section examination of the placenta from 2019 to 2021

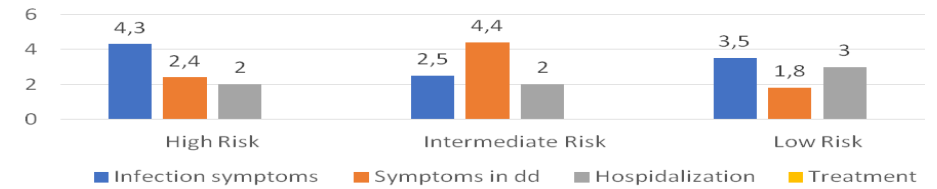


Absolute indications	Number	Percentage (%)
Premature rupture of membranes (PROM)	35	59,32
Vaginal and/or rectal swabs positive for GBS	12	20,34
Vaginal and/or rectal swabs for GBS not performed	6	10,17
Maternal fever	2	3,39
Relative indications	Number	Percentage (%)
Dyed or smelly amniotic fluid	10	16,95
Preeclampsia or Gestational Diabetes Mellitus	6	10,17
CTG Alterations	6	10,17
Others	34	57,63

## Results

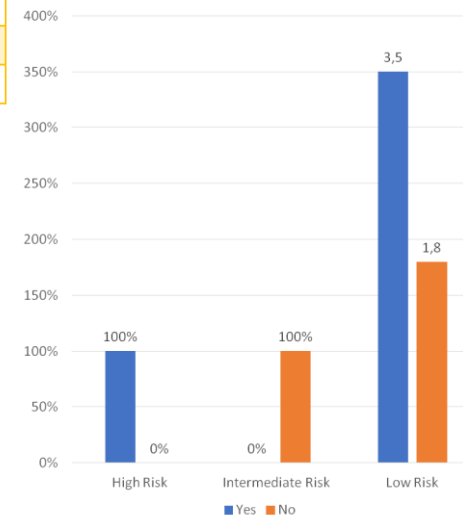
59 at term new-borns at high risk for sepsis were considered. The indications for the FSE were divided into absolute (PROM, positive or absent vagino-rectal swabs, maternal fever) and minors (foul-smelling amniotic fluid, preeclampsia, CTG alterations, others). The results showed funisitis (5) and chorionamnionitis (18); based on it, we divided the study population into three categories: high Risk (HR=5; funisitis±chorionamnionitis), which required prompt antibiotic therapy; intermediate Risk (IR=1; no funisitis, severe chorionamnionitis), treated with watchful waiting; low Risk (LR=53 no funisitis, mild/no chorionamnionitis), not treated. All the newborns did well and 43 babies avoided antibiotic therapy. LR required antibiotic therapy significantly less than the HR (p = 0.0006); only 11 LR requiring subsequent therapy and hospitalization.

Risk classes and clinical course



RISK CLASS	Funisitis ± Chorionamnionitis	Newborns	Percentage
HIGH RISK	Funisitis ± Chorionamnionitis	5 newborns	8,47%
INTERMEDIATE RISK	No Funisitis, Chorionamnionitis S2	1 newborn	1,69%
LOW RISK	No Funisitis, No Chorionamnionitis S1	53 newborns	89,83%

Antibiotic therapy



## Conclusions

The FSE of the placenta, integrated with the clinic, is simple, reliable and safe for the management of the newborn with suspected sepsis and can reduce the use of antibiotic therapy.

