

**EFFECT ASSESMENT OF AMNIOINFUSION
TO TREAT OLIGOHYDRAMNIOS
AT VINMEC INTERNATIONAL HOSPITAL**

MD. Nguyễn Thu Hoài

MD. Nguyễn Ngọc Tú

Prof. Nguyễn Quốc Tuấn

BACKGROUND

Oligohydramnios is defined when the amniotic volume is less than normal (depend on gestational age) and membra intact, diagnosis by ultrasound.

Many reasons lead to oligohydramnios: fetal defects, placenta function restriction, IUGR...

Many effect for fetus, especial early appearance and long duration. Most common effect : pulmonary hypoplasia, congenital malformation, fetal distress, stillbirth...

BACKGROUND

Many methods have been used to treat amniotic fluid, such as infusion of mothers, antibiotics, but not yet effective.

Amniocentesis is a technique first described for the treatment of severe oligohydramnios in order to reduce the risk of pulmonary hypoplasia in Japan (Nakayama et al, 1983).

Since then, amnioinfusion has been described as one of the techniques of fetal intervention for the treatment of oligohydramnios

In Vietnam, Vinmec hospital has made a systematic advance in this technique and received some positive results.

OBJECTIVES

- 1. Evaluate some conditions and criteria of amnioinfusion procedure**
- 2. Comment the results of this technique at Vinmec International Hospital**

SUBJECTS

Pregnant women having oligohydramnios and agree to be treated with amnioinfusion

Include characteristic	Exclude characteristic
<ul style="list-style-type: none">- Gestational age: 15w – 35w- Fetal HR (+)- AFI < 50 mm- Agreement involve study	<ul style="list-style-type: none">- Stillbirth- Feat malfomation finding in US- Rupture of membranes- Non agreement- Abnomal fetal chromosome- Infection

METHOD

Prospective study

Sample size: all patients who met the selection criteria and exclusion criteria were given amnioinfusion

In 20 months from 5/2016 to the 1/2018, 8 patients were selected in study

PROCEDURE

Patients were examined, diagnosed with amniohydramnios, exclude rupture membranes, noninfection

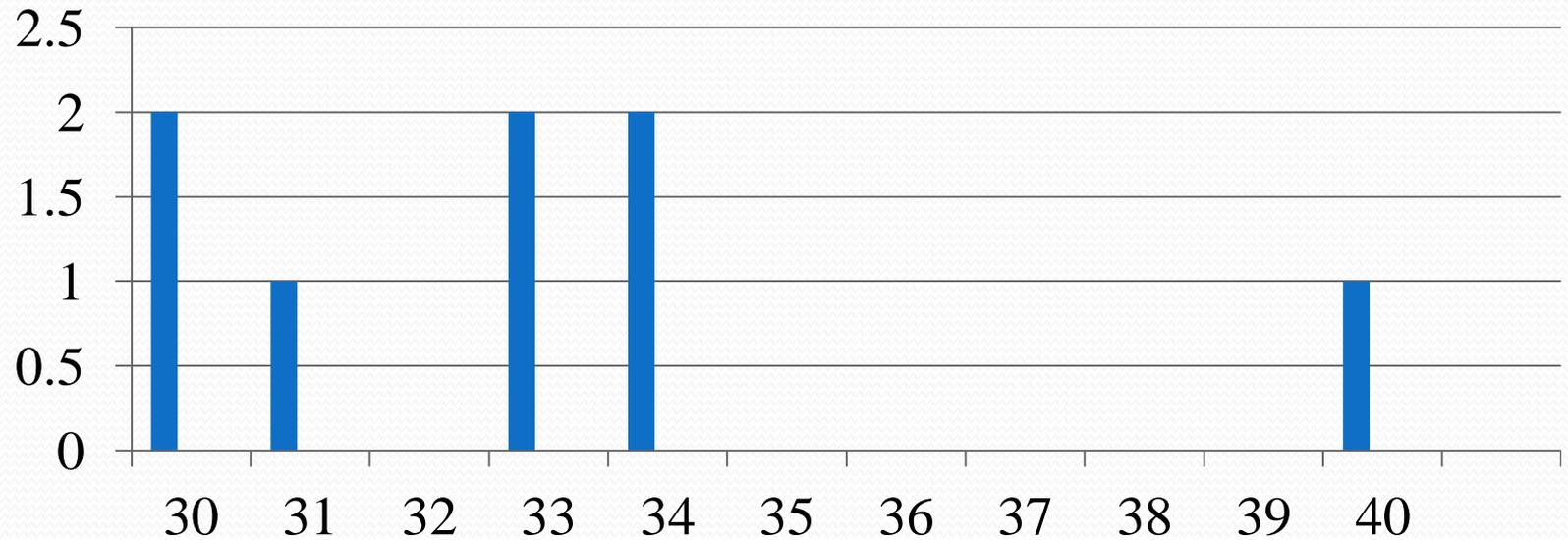
Technology:

- Carry out at the operating room, sedative +/-**
- Use 22G needle, US guide**
- Natriclorid 0.9%. 200-500ml each time depend on gestational age, and AFI, transfer rate 5-10ml / min**
- Amniotic fluid sample for genetic test, infection test.**
- Inpatient 2 days after surgery, tocolytic if needed**

Regular assessment of mother, fetus, placenta and AFI on US for clinical and subclinical assessment. Stable situation will be managed as usual until the end of gestation.

RESULTS

Maternal age



Mean age: 33,13 ± 3,22, min: 30 max: 40

RESULTS

Gestational age and follow up after Amnioinfusion

Gestational age group	Gestational age (week)	Time continue pregnancy	Gestational age in terminal
< 22 weeks	17	01	18
22 - 28 weeks	26	01	27
	22	16	38
28 - 32 weeks	28	10	38
	29	10	39
	29	10	39
>32 weeks	32	03	35
	33	04	37
Mean	27,0±5,3 weeks	6,8 ± 5,4 weeks	

Mean time continue pregnancy: 6,8 ± 5,4 weeks

6 cases continue pregnancy more than 35 weeks (5 cases than 37 weeks- 83,33%)

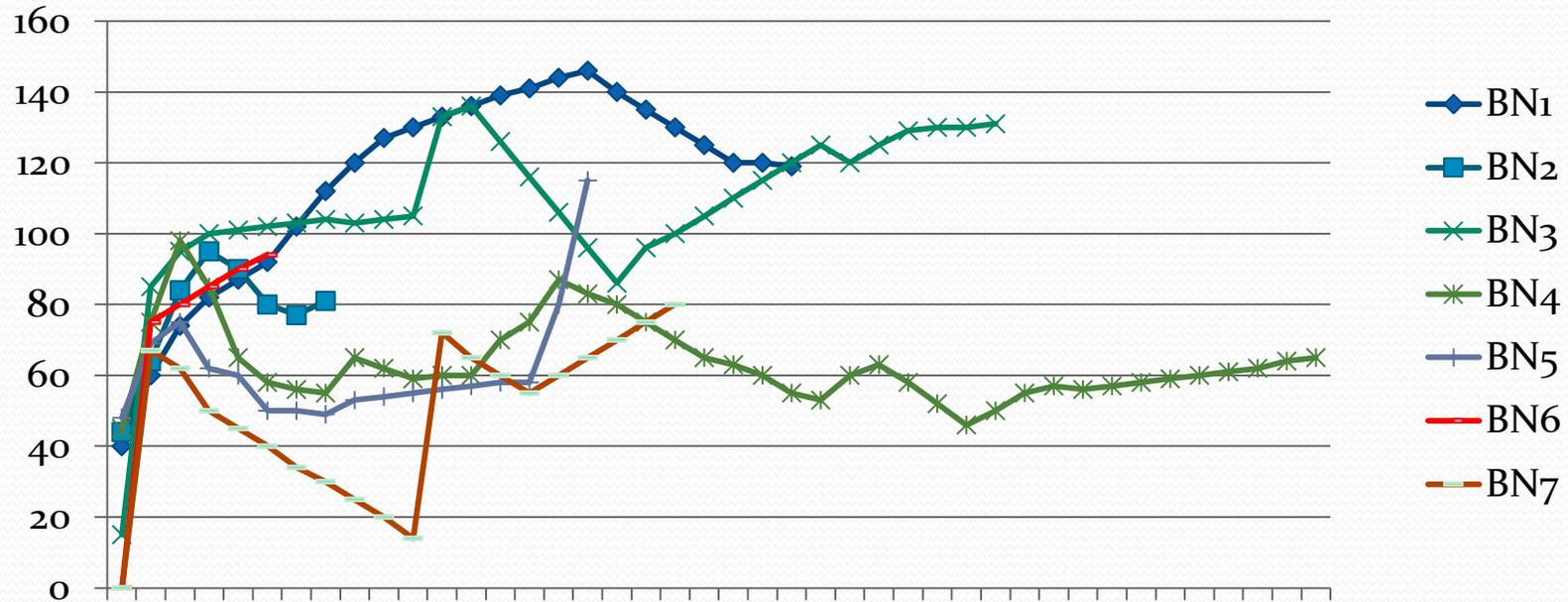
RESULTS

Volume infusion, time of procedure and time performing:

Gestational age group	Gestational age (week)	Volume(ml)	Procedure time (minutes)	Time performing
< 22 weeks	17	300	20	1
22 - 28 weeks	26	300	20	1
	22	500 (1st: 250ml 2nd: 250ml)	65 (1st: 30 min 2nd: 35 min)	2
28 - 32 weeks	28	350	50	1
	29	300	30	1
	29	200	35	1
>32 weeks	32	300	25	1
	33	350	40	1
Mean		325 ± 84 ml	35,6 ± 15,6 min	1,125

RESULTS

The change of AFI after amnioinfusion



1 case recurrent oligohydramnious need to be infusion twice times
6 cases progress (5 case AFI > 80)
Total: 7/8 cases had a good results (87,5%)

RESULTS

Newborn characteristic

1 cases miscarriage at 17 weeks of pregnancy, the other newborn

- Jaundice: 1 case (14,3%)
- Newborn need respiration support: 0 %
- Malformation:0%
- Infection: 0%
- IUGR: 14,3%
- Fetal death: 1 case (14,3%) (in case twin- 1 still birth+ 1
olygohydramnios)
- Alive: 6 cases (85,7%)

CONCLUSIONS

Amnioinfusion can be performed to treat oligohydroamnios with gestational age above 16 weeks, the volume infusion and time performing depend on gestational age and AFI before procedure.

Amnioinfusion is an effective method to treat oligohydroamnios, increase the duration of pregnancy, improve significantly the AFI therefore decrease the harmful effects on the fetus of oligohydramnios





THANK YOU !