



# 周產期會訊

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## 懷孕併急性主動脈剝離-個案討論(下) (Acute Aortic Dissection in Pregnancy --- Case Report)

高雄長庚醫院 高惠芬/許德耀 醫師

### 治療

#### 治療原則

- 一、減輕疼痛
- 二、控制血壓及心跳：維持收縮壓至100–120毫米汞柱，或平均血壓在60–70毫米汞柱之間。
- 三、密切監測病人的意識、尿輸出量、呼吸型態、四肢溫度、心電圖變化等。必要時要輸血。
- 四、決定內科保守治療或外科手術。選擇何種方式是依據主動脈剝離的區域而定。一般而言，若剝離的區域有包含升主動脈及主動脈弓時均要以手術治療，因為此型的主動脈剝離容易破裂出血及心包填塞死亡，而以內科方式治療結果極差，但若是剝離區域僅為降主動脈時，並且沒有其他併發症時，以內科方式治療效果良好，因此不必於急性期手術，可持續以藥物治療，但需密切追蹤治療，一旦剝離的區域逐漸變成血管瘤時就要接受手術。

### 結語

急性主動脈剝離在懷孕中確時是罕見的併發症，會造成母體及胎兒相當嚴重的Morbidity及Mortality。約70~90%主動脈剝離的患者本身就是罹患慢性高血壓，所以慢性高血壓與主動脈剝離是息息相關的。

就如同我們提出的個案是妊娠34週合併慢性高血壓孕婦以嚴重胸痛來表現，雖然在最快的時間內診斷為急性主動脈剝離Type A，也立即安排剖腹產手術後，隨即進行心臟外科手術。很不幸的於術後發生缺血壞死性腸炎，雖然給予手術及抗生素藥物治療。最後，很遺憾的這位病患仍敵不過缺血壞死性腸炎所造成的嚴重敗血性休克。

因此，若懷孕的婦女本身患有慢性高血壓及嚴重且持續的胸痛，就要特別注意急性主動脈剝離的可怕急症。

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### The 11-13<sup>+6</sup> Weeks Scan

**高雄長庚醫院婦產部 蔡慶璋**

#### Outline

- The features of chromosome defects in first trimester ultrasonography
- Downs Screening at 11-13<sup>+6</sup> weeks
- NT (nuchal translucency) certification

#### The features of chromosome defects in first trimester ultrasonography

- Nuchal Translucency
- Nasal bone
- Tricuspid regurgitation
- Doppler in ductus venosus
- Maxillary length
- Megacystis
- Ear length
- Femur and Humerus length
- Single umbilical artery
- Exomphalos
- Choroid plexus cyst, pyelectasis, cardiac echogenic foci
- Placenta volume

#### Nuchal translucency – definition

- Nuchal translucency is the sonographic appearance of subcutaneous accumulation of fluid behind the fetal neck in the first trimester of pregnancy.
- The term translucency is used, irrespective of whether it is septated or not and whether it is confined to the neck or envelopes the whole fetus.

#### Normal progress of NT

- In normal fetuses NT thickness increases with fetal crown-rumplength (CRL).
- The median and 95th centile of NT at a CRL of 45 mm are 1.2, and 2.1 mm and the respective values at CRL of 84 mm are 1.9 and 2.7 mm (Snijders et al 1998).
- Increased NT, refers to a measurement above the 95th centile
- After 14 weeks, increased NT usually resolves but in some cases it evolves into nuchal edema or cystic hygromas.

#### Measurement of Nuchal Translucency

##### Image and measurement

- The fetal crown-rump length should be between 45 and 84mm
- A good sagittal section of the fetus must be obtained, with the fetus horizontal on the screen.
- The fetus should be in a neutral position
- The widest part of translucency must always be measured.
- Measurements should be taken with the inner border of the horizontal line of the callipers placed ON the line that defines the nuchal translucency thickness –

## Nasal bone

- At 11–13<sup>+6</sup> weeks the nasal bone is not visible by ultrasonography in about 60–70% of fetuses with trisomy 21, 50% of trisomy 18 fetuses and 30% of trisomy 13
- Not visible in about 2% of chromosomally normal fetuses.

## Tricuspid flow

- An apical four-chamber view of the fetal heart should be obtained
- A pulsed-wave Doppler sample volume of 2.0 to 3.0 mm should be positioned across the tricuspid valve so that the angle to the direction of flow is less than 30 degrees from the direction of the inter-ventricular septum
- Doppler in the ductus venosus**
- Blood flow in the ductus has a characteristic waveform with high velocity during ventricular systole (S-wave) and diastole (D-wave), and forward flow during atrial contraction(a-wave).

## Maxillary length

- Anthropometric and radiological studies in patients with Down's syndrome have demonstrated underdevelopment of the maxilla in more than 50% of cases (Farkas et al 2001).
- The fetal maxilla can be easily visualized and measured by sonography at 11–13<sup>+6</sup> weeks of gestation (Cicero et al 2004).
- In chromosomally normal fetuses maxillary length increases linearly with gestation by about 0.1 mm for each 1 mm increase in crown-rump length.
- In the trisomy 21 fetuses the median maxillary length is significantly below the normal median for crown-rump length by 0.7 mm.

## Megacystis

- Fetal megacystis at 11–13<sup>+6</sup> weeks of gestation, defined by a longitudinal bladder diameter of 7 mm or more, is found in about 1 in 1,500 pregnancies.
- Megacystis is associated with increased NT, which is observed in about 75% of those with chromosomal abnormalities, mainly trisomy 13, and in about 30% of those with normal karyotype (Liao et al 2003).

## Maternal serum biochemistry in the first-trimester

In trisomy 21 pregnancies, free b-hCG is increased and PAPP-A is decreased.

- In trisomies 18 and 13 maternal serum free b-hCG and PAPP-A are decreased

## Nuchal translucency and maternal serum biochemistry

- The ultrasonographic and biochemical markers can be combined to provide more effective screening than either method individually (Spencer et al 1999).
- In the combined data on a total of 38,804 pregnancies, including 182 with trisomy 21, the detection rate for trisomy 21 at a 5% false positive rate was 86% (Nicolaides 2004)

## The NT Certification Process

- Attendance of a FMF-recognised theoretical course
- Practical training in performing the 11-13<sup>+6</sup> weeks scan
- Submission of a logbook of 10 images demonstrating the measurement of NT

# 公 告

- 活動名稱：第四屆NT國際認證課程  
活動時間：96年5月27日(星期日) 上午9點至下午5點  
活動地點：台北馬偕醫院平安樓15樓階梯講堂
- 專題演講：Dr.Pooh Ritsuko  
Fetal Brain Scan of Recent New Discovery in Transvaginal Neurosonography?  
活動時間：96年5月28日(星期一) 上午7點20分至8點30分  
活動地點：台北馬偕醫院福音樓9樓第三講堂
- 活動名稱：中區六月份月例會  
活動時間：96年6月24日 下午2點至4點  
活動地點：台中榮民總醫院第二醫療婦幼大樓2F會議室 (台中市西屯區台中港路三段160號)
- 活動名稱：周產期專科醫師甄審公告(符合資格之會員學會已於3月29日掛號寄出)  
活動時間：96年7月22日(星期日) 上午舉行筆試，下午舉行口試  
活動地點：台大醫院
- 活動名稱：台日周產期懇談會  
活動時間：8月25-26日  
活動地點：日本仙台(學會將會組團前往，請各位會員上網查詢-預計五月份會公佈詳細行程)



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