

## Reconnaissance TDM de la dissection aortique aiguë

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**Introduction:** La dissection aortique aiguë est une urgence cardiovasculaire qui nécessite un diagnostic et un traitement rapides. La tomographie assistée par ordinateur hélicoïdale permet le diagnostic de la dissection aortique aiguë avec une sensibilité et une spécificité de près de 100%.

**Contenu:** La présentation traite du rôle de la TDM dans le diagnostic et la prise en charge de la dissection aortique et des complications associées. La littérature disponible sur l'aortographie tomographique sera revue et plusieurs cas seront utilisés comme exemples pour illustrer l'approche d'imagerie de la dissection aiguë de l'aorte. Des questions / réponses interactives avec le public seront utilisées pour évaluer la bonne exécution des objectifs. En particulier, le public sera invité à donner son opinion sur plusieurs cas et les réponses seront discutées pendant le congrès.

**Conclusions:** Les participants seront en mesure d'identifier les caractéristiques hélicoïdales de la dissection aortique, les hématomes intramurales, les ulcères athérosclérotiques pénétrants et être familiarisés avec les changements qui se produisent pendant le suivi de la dissection aortique.

**Mots-clés:** dissection aortique, ulcères athérosclérotiques pénétrants, tomographie assistée par ordinateur.

## CT recognition of acute aortic dissection

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**Background:** Acute aortic dissection is a cardiovascular emergency that requires prompt diagnosis and treatment. Helical computed tomography (CT) allows diagnosis of acute aortic dissection with a sensitivity and specificity of nearly 100%.

**Content:** The presentation discusses the role of CT with arterial contrast enhancement in the diagnosis and management of aortic dissection and related complications. Available literature on CT aortography will be reviewed and several cases will be used as examples to illustrate the imaging approach of acute aortic dissection. Interactive questions/answers with audience will be used to assess the proper delivery of the objectives. In particular the audience will be asked an opinion on multiple cases and the answers will be discussed during the lecture.

**Conclusions:** Attendees will be able to identify the helical CT features of aortic dissection, intramural hematomas, penetrating atherosclerotic ulcers and be familiar with the changes that occur during the follow-up of aortic dissection.

**Key words:** aortic dissection, penetrating atherosclerotic ulcers, computed tomography.

## The role of ultrasound in the prognosis of adverse perinatal outcome in fetuses with intrauterine growth restriction

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**Background:** Doppler ultrasound may indicate poor fetal prognosis by detecting abnormal blood flow waveforms. The study aimed to evaluate the Doppler ultrasound assessment on umbilical artery (UA) and middle cerebral artery (MCA) as a predictive marker of perinatal outcome in fetuses with intrauterine growth restriction (IUGR).

**Material and methods:** A total of 126 IUGR pregnancies with a birth weight <10 percentiles were ultrasonographically evaluated. Doppler velocity in UA and MCA, was performed at 30.6-32.6 weeks of pregnancy. We considered adverse perinatal outcome: Apgar score  $\leq 7$  to 1 and 5 minutes, admission to the Department of Neonatal Intensive Care (NICU), gestational age <37 weeks at birth.

**Results:** In the abnormal Doppler group, the newborns weight was  $7 \pm 1.51$  percentile, Doppler anomaly (absent/reversed end diastolic flow, UA-PI >95 percentiles, cerebro-placental ratio <1) determined the Apgar score of  $6 \pm 0.75/1$  minute and  $7 \pm 0.64/5$  minutes, a gestational age at birth of  $36.2 \pm 1.01$  weeks (premature birth), an admission to the NICU of 30.15% for neonates. Comparatively, in the normal Doppler group, the newborns weight was  $9 \pm 1.03$  percentile, the Apgar score was  $8 \pm 0.95/1$  minute and  $9 \pm 0.76/5$  minutes, the gestational age at birth was  $37.4 \pm 0.99$  weeks and admission to the NICU was required in only 12.69% of neonates of this group.

**Conclusions:** Doppler antenatal monitoring may be a useful marker in the prognosis of perinatal evolution in fetuses with severe growth restriction.

**Key words:** intrauterine growth restriction, Doppler ultrasound, antenatal monitoring.