Objective:
• To assess the predictive value of early non-visualization of the parotid gland in a high-risk population of fetuses with increased NT.

Materials and methods:
• 20 cases referred for a NT>95%: visualization vs. non-visualization of the parotid gland vs. genetic analysis.

Results:
• 20 fetuses NT > 95%
  • 10 = non visualization of the parotid gland → All fetal aneuploidy (7 T21, 2 T18, 1 XO)
  • 10 = visualised parotid gland → 9 normal, 1 T21
• Sensitivity, specificity, NPV and PPV for fetal aneuploidy: 90.9%,100%, 90.9% and 100%.

Conclusions:
• 1st trimester imaging of the fetal parotid glands is feasible.
• A possible correlation exists between non-visualization of the parotid gland and aneuploidy - A potential marker for 1st trimester dichotomisation of aneuploid from euploid pregnancies in high risk cases?