

To compare thyroid function tests in preterm neonates (<30 weeks and >48 hour old) exposed to iodine-based contrast with controls and ascertain the certainty of peripherally inserted central catheter (PICC) tip position” Rath et al (2018).

Abstract:

AIM: To compare thyroid function tests in preterm neonates (<30 weeks and >48 hour old) exposed to iodine-based contrast with controls and ascertain the certainty of peripherally inserted central catheter (PICC) tip position.

METHODS: Infants requiring a PICC were randomised to receive 0.3 mL of iodine-containing contrast or normal saline. The primary outcome was the difference in thyroid-stimulating hormone (TSH) levels on day 14 post PICC insertion and on day 28 of life.

RESULTS: 41 infants were randomised with no significant differences in TSH level (mIU/L) at day 14 post PICC insertion (3.1 vs 2) or on day 28 of life (2.2 vs 1.7). The PICC tip was more easily localised in the contrast group (85% vs 55%). Urinary iodine levels were significantly increased in the contrast-exposed group.

CONCLUSION: Use of contrast did not suppress subsequent thyroid function and helped visualise the PICC tip with more certainty.

CLINICAL TRIAL REGISTRATION NUMBER: ACTRN 12614000560695, pre-result.

Reference:

Rath, C.P., Thomas, M., Sullivan, D. and Kluckow, M. (2018) Does the use of an iodine-containing contrast agent to visualise the PICC tip in preterm babies cause hypothyroidism? A randomised controlled trial. Archives of Disease in Childhood. Fetal and Neonatal Edition. 28th may. .

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