Catheter-related IJV thrombosis is a frequent complication in ICU patients and is associated with the increased risk of CLABSI. Ultrasound screening is simple, feasible and accurate in diagnosing IJV thrombosis” Nm Bhat et al (2019).

Abstract:

BACKGROUND AND AIMS: Internal jugular vein (IJV) cannulation is a common procedure in the ICU with thrombosis being an uncommon, albeit serious complication. Thrombosis is one of the important complications of IJV cannulation. This study aims to evaluate the use of ultrasound screening by intensivists to assess the incidence of catheter-related IJV thrombosis in ICU.

MATERIALS AND METHODS: Fifty consecutive IJV cannulations meeting the inclusion criteria were analyzed in the ICU. Duplex scanning and color doppler sonography were performed by the intensivist on day 3, 6, 9, 12 and 15 after cannulation. The thrombus, when detected, was confirmed independently by a radiologist. The patient demographics, the type of catheter, laterality and the mean duration of catheterization were recorded. Risk factors like presence of circulatory shock, thrombocytosis, DIC, liver disease, and absence of chemoprophylaxis for DVT were documented.

RESULTS: A total of 39 patients and 50 cannulations were studied. The mean age of patients was 56.5±16.2 years and mean duration of catheterization was 6.6±2.1 days. We found a
38% (19/50) incidence of thrombosis in our study. There was 100% correlation in detection of thrombosis by the intensivist and the radiologist. The thrombus was detected at 6.9±2.1 days after cannulation. All the patients who developed thrombosis had one or more risk factors. The most common risk factor was circulatory shock (40%). Central line associated blood stream infection (CLABSI) was seen only in the patients in whom IJV thrombus was detected (5/19).

CONCLUSION: Catheter-related IJV thrombosis is a frequent complication in ICU patients and is associated with the increased risk of CLABSI. Ultrasound screening is simple, feasible and accurate in diagnosing IJV thrombosis.

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