AB037. 55. Inferior vena cava filters, the relationship between length of time from insertion to removal and the retrieval procedure screening time and radiation dose

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Background: Inferior vena cava filter (IVCF) placement is performed for multiple indications in the prevention of complications associated with deep venous thrombosis. Removal is generally recommended in 4–6 weeks or as soon as no longer required. The aim of this study was to examine the relationship between length of time between insertion and removal of the filter and the technical difficulty in device removal (indicated by procedure screening time and procedure dose area product (DAP).

Methods: A single centre, retrospective, audit of all patients for whom IVCF retrieval was performed over 24 months (01/02/2015–01/02/2017) was conducted. Patients were identified from our local interventional radiology database. Data recorded from images and reports included: age, sex, time since IVCF insertion to removal (days), procedure screening time (minutes) and procedure DAP (µGym2). Statistical analysis was performed and association between length of time between insertion and removal as well as procedure screening time and procedure DAP were determined using Spearman's rho correlation (significance level $P<0.05$).

Results: Forty patients (25 male) were identified; the median (IQR) age was 54.4 (35.3–71.3) years, range 21–86 years. The average (±SD) time from insertion to retrieval was 138.1 (±129.0) days, the average (±SD) procedure screening time was 6.47 (±6.6) minutes and the average (±SD) DAP was 1,198.2 (±1,750.6) µGym2. The associations between time from insertion to retrieval and procedure screening time and DAP were not significant ($P=0.187$ and $P=0.851$ respectively).

Conclusions: In contrast to conventional expectations, this study demonstrates that the time from insertion to retrieval of IVCF varies and is not associated with length of screening time or procedure radiation dose (DAP).

Keywords: Interventional radiology; radiation dose; inferior vena cava filter (IVCF)

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