

Background: Malignant pleural effusion (MPE) is a common cause of a recurrent pleural effusion, and a common indication for indwelling pleural catheter (IPC) insertion. The relationship between treatment time with IPC and survival has never been investigated in patients with MPE.

Aim: To analyse survival times in patients with MPE from the date of symptomatic effusion requiring IPC insertion, according to when the IPC was inserted in the treatment course.

Method: Details of patients who had IPC insertions for MPE between the years 2008-2015 were collected from our procedure database and analysed against the clinical records.

Results: 146 cases (72 female; mean age 68 years) were studied. The commonest primary malignancies were lung (25%), breast (21%), and mesothelioma (20%). 34 cases were excluded due to incomplete data, 11 were still alive. In the remaining 101, 41.6% had a primary malignancy diagnosed prior to pleural effusion being diagnosed (Group A), 58.4% had the first pleural effusion diagnosed prior to the malignancy being diagnosed (Group B). 93% of the study population had died by January 2017. Overall survival time was a mean of 453 days after IPC insertion. In Groups A and B, there was a mean of 136.1 days and 214.9 days respectively between IPC insertion and death ($p < 0.05$).

Conclusion: Time between IPC insertion and death varies significantly between patient groups according to whether malignant effusion is diagnosed prior to the diagnosis of malignancy elsewhere or if MPE is the primary cause of diagnosis. Further analysis by tissue type, chemotherapy and performance status is required to identify factors that influence survival time in patients treated with IPC.