

Retrospective analysis of whether prior talc pleurodesis attempt affects subsequent IPC-related autopleurodesis or not

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Background: Indwelling pleural catheters (IPCs) are used to manage recurring effusions in patients with symptomatic malignant pleural effusion (MPE). A subset of these patients will have had previous failed talc pleurodesis. This study aims to look at the rate of autopleurodesis (and the time to achieve this) in IPC patients who had received previous talc compared to those who had not.

Methods: All IPC insertion records for MPE between 2008 and April 2017 were analysed retrospectively. Data on previous ipsilateral pleural procedures, including attempted talc pleurodesis performed prior to the IPC insertion, and details about IPC insertion outcomes were collected from the medical records. Autopleurodesis was defined as minimal or no output via IPC, with subsequent IPC removal.

Results: 181 IPC insertions for MPEs were recorded, but 2 insertions were excluded due to insufficient data about IPC removal date and reason for removal (n=179 analysed further). 68 patients (38%) had received prior talc (60 received talc once; 8 received talc twice); while 111 (62%) had not received prior talc.

IPC was subsequently removed due to autopleurodesis in 23 of the 68 (33.8%) who had received prior talc after a median 105 days (IQR 91) (an additional IPC was removed because of pain 4 days after insertion). IPC was subsequently removed due to autopleurodesis in 37 of the 111 (33.3%) who had not received prior talc after a median 104 days (IQR 83.5) (3 more IPCs removed in this group for other reasons).

There was no difference in rates of autopleurodesis between patients who had received prior talc and those who had not (χ^2 0.0045, $p = 0.946$). When comparing time to autopleurodesis, there was no statistically significant difference between the 2 groups (2 tailed Mann Whitney test, $p = 0.29$).

Conclusion: There does not seem to be a difference in the rate of autopleurodesis between patients who had previous failed talc pleurodesis and those who chose IPC in the first instance. Further studies are needed to investigate whether the pleural space in certain patients is inherently resistant to different forms of pleurodesis.

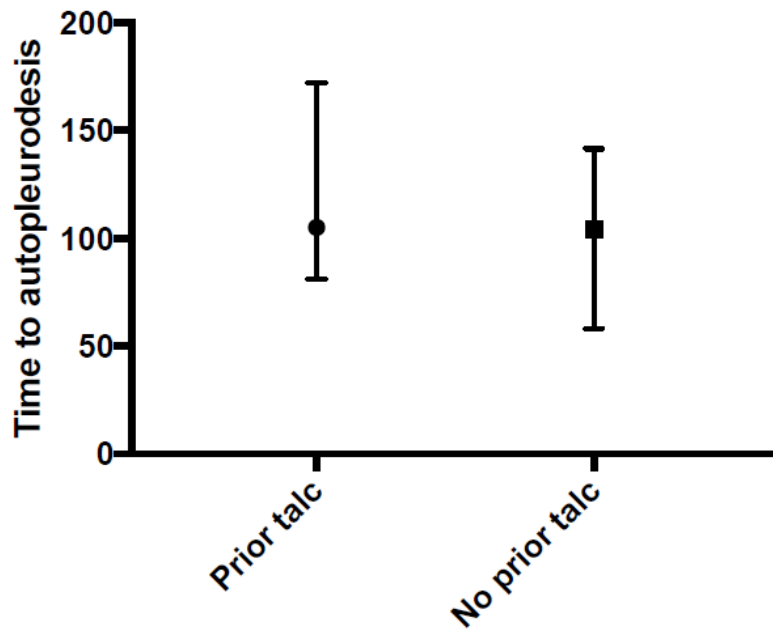


Figure 1 shows a comparison of the median (and interquartile range) number of days to autopleurodesis from IPC insertion to IPC removal, between patients with MPE who had received prior talc, and those who had not.

