**ALK rearrangement in pulmonary sarcomatoid carcinoma: A retrospective study of the real world**

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**METHODS**

A total of 52 patients with PSC were recruited between September 2007 and December 2017. The status of ALK rearrangement was detected by reverse transcriptionpolymerase chain reaction (RT-PCR).

**RESULTS**

Of this study, three patients were identified with ALK rearrangement in Chinese population (5.77%, 3/52). They were all were pulmonary pleomorphic carcinoma (PPC). PSCs in former or current smokers were more likely to harbor ALK rearrangement than those in non-smoker (P<0.05).

**CONCLUSIONS**

The incidence rates of ALK rearrangement in PSC in the Chinese population are similar to those of other subtypes of NSCLC. PSCs in former or current smokers are more often to harbor ALK rearrangement. ALK inhibitors may serve as an effective treatment for ALK-rearranged PSC.