140P Brigatinib experience on the ALK project

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Background: The ALK Project established a network across the UK with the aim to analyse treatment patterns/outcomes and promote collaborations and research. The treatment pathway for ALK+ patients has been revolutionised in recent years.

Methods: A multicentre retrospective analysis across 32 NHS hospitals/trusts identified 196 ALK+ non-small cell lung cancer (NSCLC) patients who were offered treatment by Dec-2018. Patients who received brigatinib during their treatment pathway were selected. The primary aims were 2-years overall survival (OS) and median OS from start of brigatinib. The secondary aims were objective response rate (ORR), incidence of grade 3-4 toxicity and 5-years/median OS from diagnosis of advanced NSCLC.

Results: A total of 50 patients were included with 48% being males, 70% never smoked tobacco and the median age at diagnosis was 50 years. 66% of patients developed brain metastasis at some point during their care and 52% had brain metastasis at the start of brigatinib. Brigatinib was used as the first, second or subsequent ALK inhibitor in 18%, 50% and 32% of cases, respectively. 82% of patients were exposed to other ALK inhibitors during their treatment pathway and 46% received chemotherapy prior to the start of any ALK inhibitor. On a median follow-up (since start of brigatinib) of 10 months, patients stayed on brigatinib for a median of 9 months (95% CI, 3.1-14.9), reaching 14 months (95%CI 11.0-19.9) if no brain metastasis ($p = 0.15$). The overall ORR was 64% and the incidence of grade 3-4 toxicity was 16%. Median OS from start of brigatinib was not reached and the 2-years OS according to brain metastasis was 61% or 83%, in favour of those without brain metastasis ($p = 0.037$). The median OS from diagnosis of advanced NSCLC was not reached and the 5-years OS was 55%.

Conclusions: Brigatinib is well tolerated and an effective treatment even in heavily pretreated patients or in those with brain metastasis. A nationwide collaboration is possible and revealed the remarkable survival improvements for ALK+ patients with the development of newer generations of ALK inhibitors.

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