

Review of: "Advancements in the Detection and Treatment of Rare ALK Fusion Mutations in Hepatocellular Carcinoma: A Case Report and Literature Review"

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Potential competing interests: No potential competing interests to declare.

Advancements in the Detection and Treatment of Rare ALK Fusion Mutations in Hepatocellular Carcinoma: A Case Report and Literature Review

In this manuscript, Qiu Yan describes succinctly a clinical case of metastatic hepatocellular carcinoma (HCC) affecting a 51-year-old woman. Using next-generation sequencing, a COX7A2L-ALK fusion was detected beside a point mutation affecting the APC tumor suppressor gene. The patient was treated with anti-ALK, and the follow-up was characterized by a stabilization of the disease for at least 20 months. In the discussion, the author indicates that at least 42 cases of gene fusion involving ALK have been identified.

The search for additional cases was performed on 2 Chinese databases, but the corresponding websites are not given. Are they accessible by non-Chinese speakers? Are there English versions?

The author mentions that all ALK fusion cases involved rare fusion partners. What does it mean? ALK fusion is a rare event, and corresponding partners are therefore more rare.

What is a double ALK fusion?

We understand that ALK is always in the 3' position of the fusion, but which part of the gene is recurrently involved in the fusion?

The author mentions in total the fusion partners for 10 cases (5 STRN, 3 BCL11A, 1 CMTR1, 1 COX7A2L), but what happened in the 32 remaining cases?

Is it possible to assess the prevalence of ALK fusions? Their putative prevalence is not given.

The end of the discussion is characterized by an almost total absence of references despite very authoritative statements. It is not something acceptable. Facts underlying all assumptions should be summarized in a reference or specified as representing a hypothesis.

Finally, what were the risk factors found in the patients and in the cases found in the literature? The status of the liver (fibrotic, cirrhotic) is unknown. A HCC appears generally in a well-defined pathological context, but the author does not



provide any details.