LETTER TO THE EDITOR

FDA approves tebentafusp-tebn for unresectable or metastatic uveal melanoma

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Dear Editor, Uveal melanoma is the most prevalent intraocular malignant tumour in adults. Contrary to cutaneous melanomas, which typically have a BRAF or NRAS mutation, UMs are typically caused by a mutation in GNAQ=+or GNA11.[1] It is typically asymptomatic but can present with loss of vision, visual field defect, floaters and photopsia. Epithelioid cell type of UM carries the poorest prognosis among all types.

The Western population is more likely to have uveal melanoma than Asian population. In a study conducted, people living in the West were reported to have a 5–6 case/million annual incidence of UM whereas the incidence ranges from 0.2 to 0.6 per million in various regions of Asia.[2]

The FDA approved Tebentafusp at the end of January'22 to treat patients with inoperable or metastatic cases of uveal melanoma. It is the first medication demonstrated to increase overall survival in patients with UM. Additionally, the remdy is the first T-cell receptor treatment to enter the market.[3]

Tebentafusp is novel immunotherapy that marks glycoprotein 100, associated with melanoma. Its highly potent TCR binding site and anti-CD 3 T-cell site, stimulates T cells to destroy gp-100 expressing melanoma cells.[4]

In a randomized control trial, the mean survival rate of the tebentafusp group was 76% as opposed to 26% for the placebo group. The tebentafusp group reported rash 83%, pyrexia 76%, and itching 69%, which were the most frequent side effects of the treatment. These symptoms were caused by T-cell stimulation or by glycoprotein 100-positive melanocytes. After the initial doses, the frequency and severity of these side effects decreased. There were no deaths attributed to the treatment.[5]

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Uveal melanoma carries a poor prognostic outcome with a one-year survival rate after metastasis of about 10-40%. The anti-tumour effectiveness seen in tebentafusp trials raises the possibility of tebentafusp's wide therapeutic potential in malignancies with both a high and low mutational burden.[1] However, additional studies on a larger population of various entities are required to determine the efficacy and potency of tebentafusp against different stages of UM.

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