Background: Basal cell carcinoma is the most common skin cancer among immunocompetent individuals and accounts for 80% of all malignant cutaneous lesions.

Observation: We report a case of a 64-year-old man presented with a 3-year history of ulcerative basal cell carcinoma involving the auricular area and extending to the middle ear who was diagnosed as human immunodeficiency virus (HIV) positive in 1988 and was under antiretroviral therapy. Though the skin tumor had not affected the auricular nerve, due to its extension, an invasive surgery was required. However, the patient refused any surgical intervention. Hence, the basal cell carcinoma was treated with topical application of 5-fluorouracil ointment for 4 weeks with partial improvement of the lesion. However, recurrence occurred after one month. As an alternative approach, after consulting the infectious disease specialist the patient was prescribed oral Vismodegib (150 mg daily). Complete resolution of the skin disease on clinicodermoscopic and histopathological examination was achieved after 24 weeks of therapy after which Vismodegib was discontinued. For the entire duration of the treatment, the patient was on a 2-monthly follow-up. The therapy was well tolerated and CD4 count remained within the normal limits (1200/µl). During therapy, the patient showed typical side effects of the drug such as dysgeusia, asthenia and muscle cramps. Currently, the patient is still on follow-up every 4 weeks since 1 year and no recurrence of the basal cell carcinoma has been observed.

Key message: Although Vismodegib appears to be a safe drug for the treatment of inoperable locally advanced or metastatic basal cell carcinomas, in high-risk patients, the optimal treatment protocol is still unknown; further studies are required to better evaluate the use of this targeted therapy for basal cell carcinomas, as an alternative approach in HIV positive inoperable patients.