90Y-DOTATOC

Uptake of (90)Y-DOTATOC in meningiomas was high in all studied patients. Uptake in HGGs was significantly worse than in meningiomas but was still acceptable for RGS, particularly if further research and development are done to improve the performance of the β(-) probe [1].

(90)Y-DOTATOC and (177)Lu-DOTATOC are promising tools for treating progressive unresectable meningioma, especially in cases of high tracer uptake in the tumor [2].

Standard treatment of meningiomas consists of surgery and/or radiotherapy. Complex, especially recurrent or progressive cases, may exhibit tumor growth involving critical neurovascular structures or diffuse growth, resulting in limited efficacy and higher risks of standard treatment. We evaluated, if somatostatin receptor-targeted radionuclide therapy with 90Y-DOTATOC may be a therapeutic option.

15 patients with recurrent or progressive meningiomas after multimodal pretreatment and/or unfavorable medical risk profile were treated with intravenous 90Y-DOTATOC. Endpoints were progression free survival and toxicity.

Usually applied doses were 7400 MBq/m2 90Y-DOTATOC in two fractions. Mean observation time was 49.7 months (range 12-137). Median progression free survival was 24 months (mean 44.7, SD 37.8). Toxicity was moderate, mostly hematological (n = 8) and transient.

90Y-DOTATOC may represent an option for complex recurrent, progressive or diffuse meningiomas. Further studies are needed to evaluate efficacy, long term results and adequate doses for benign and malignant meningiomas [3].

1)
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