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INTRODUCTION

Malignant tumors of the orbit make 41-45.9% [4, 5] and they represent a threat to both the organ of vision and the patient's life. Thus, according to a number of authors [5], malignant tumor recurrence of the orbit within 5 years was observed in 36 out of 56 observed patients, ie. the tumor recurrence was observed in 64.3% of patients, who died in the following years. As is evident from the above data, the results of treatment of malignant tumors of the orbit are not satisfactory. In the analyzed group of 56 patients with malignant tumors, the 5-year survival was only 36%.

Keywords: NA

Classification: NLMC CODE: QZ 269

Language: English



LJP Copyright ID: 392815

London Journal of Medical and Health Research

Volume 21 | Issue 6 | Compilation 1.0



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I. INTRODUCTION

Malignant tumors of the orbit make 41-45.9% [4, 5] and they represent a threat to both the organ of vision and the patient's life. Thus, according to a number of authors [5], malignant tumor recurrence of the orbit within 5 years was observed in 36 out of 56 observed patients, ie. the tumor recurrence was observed in 64.3% of patients, who died in the following years. As is evident from the above data, the results of treatment of malignant tumors of the orbit are not satisfactory. In the analyzed group of 56 patients with malignant tumors, the 5-year survival was only 36%.

The basic method of treatment of malignant tumors of the orbit is surgical treatment consisting of removal of the tumor, possibly with subsequent radiotherapy and chemotherapy [1, 3]. However, surgical treatment of malignant tumors of the orbit leads to anatomical and functional disorders. Independent use of radiation therapy does not lead to the desired result. It seems to us that the increase in the efficiency of radiation therapy and minimization of negative consequences of systemic chemotherapy can be achieved by including selective intraarterial chemotherapy in the complex treatment of malignant orbital tumors, which allows us to create a higher concentration of the drug in the tumor itself and, consequently, increases its sensitivity to radiation therapy [2, 6].

Aim: of this research is to study the effectiveness of radiation therapy in combination with adjuvant

selective intra arterial chemotherapy (cisplatin) in the treatment of malignant orbital tumors.

II. MATERIAL AND METHODS

Treatment was analyzed in 21 patients (age 45.6 ± 2.9 years, men - 9 cases, women - 12). By the nature of treatment the patients were divided into two groups. The first group consisted of 7 patients, who at the first stage had undergone orbital tumor removal with the following histolo- gical examination (orbital melanoma - 2, eyelid and orbit melanoma - 2, a mixed tumor of the lacrimal gland - 1, histiocytoma and angiosarcoma of the orbit - 2). Observation period (12-64 months). The second group consisted of 14 patients who had previously had a tumor biopsy followed by histological examination (orbital melanoma - 2, evelid and orbit melanoma - 6, cylinderoma - 2, osteoclastoma - 1, lacrimal gland adenocarcinoma - 1, rhabdomyosarcoma - 1 and angiosarcoma - 1), then followed by combined treatment, which consisted of administration of cisplatin into the maxillary artery and parallel radiation therapy focused on the tumor growth area. It should be noted that in all 6 cases, the flat cell carcinoma affected the maxillary sinus and the lattice bone, and in one case - spread into the middle cranial pit. The essence of the intra-arterial chemotherapy technique was that the catheter is retrogradely inserted through the external temporal artery (to a depth of 2-3 cm) to the mouth of the maxillary artery (Fig. 1). The position of the catheter was controlled during the operation using a 0.5% solution of methylenum coeruleum, which after being inserted into the catheter (0.5-0.7 ml), stained the tissue area corresponding to the blood supply area of the maxillary artery.



Fig. 1. 1: Catheter is put into temporal artery, 2 - control of it's position with the help of 0,5% solution methylenum coeruleum

In addition, control angiography was performed prior to cisplatin infusion to determine the correct position of the catheter (Fig. 2).

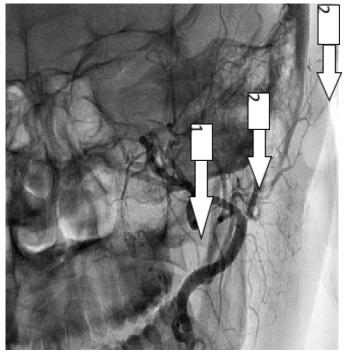


Fig. 2: Control angiography (1 - a. maxillaries, 2 - catheter in a. temporalis superfacialis)

After that, using a syringe-dispenser, cisplatin is injected at 20-50 mg for 3-7 days (total dose 118.8 + 43.8 mg) (Fig. 3).



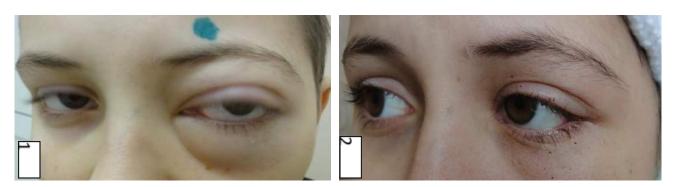
Fig. 3: Portable metering device for cisplatin introduction

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Telegamma Therapy was carried out in both groups of patients starting from the second day after the beginning of chemotherapy (total dose 45.6 + 14.9 Gy). Evaluation of the treatment results in the first group of patients was carried out according to the presence or absence of relapses. In the second group, treatment was assessed according to the following criteria: early (20-25 days after the end of telegamma therapy) - no tumor regression, partial or complete regression; in the long term (from 4 months and more) - the presence of tumor regression (partial or complete). The observation period is from 3 to 60 months.

III. RESULTS

In 6 out of 7 patients of the first group, tumor recurrence was absent (follow-up period 3-60 months), and in one case, recurrence of upper eyelid carcinoma was marked after 12 months. In patients of the second group, in all cases, a patients of the second group, in all cases, a positive resu-It of treatment was achieved upon compl- etion of radiation therapy. In six patients (4 cases of cancer, osteoclastoma -1 and 1 - rhabdomyosarco ma), almost complete tumor resorption was marked upon completion of the course of chemotherapy and radiotherapy. Eight patients (adenocarcinoma of the lacrimal gland - 1, cylindroma-2, melanoma of the orbit-2, cancer-2 and angiosarcoma-1) had a partial result during the treatment period, however, at the control examination after 3-4 months and subsequent months (up to 6 months) in 11 patients, complete tumor resorption was achieved, and in one case - long-term growth of orbital angiosarcoma. During the course of the treatment, it was found that the activity of tumor resorption depends on the total dose of the chemotherapy drug and the cellular structure of the tumor. A clinical example is presented as an example (photo 1).



1 - Before treatment

2 - After treatment (in 24 days)

Fig. 4: Patient N., 16 years old, rhabdomyosarcoma of the left orbit

It should be noted that in 14 patients it was possible to maintain visual acuity from 0.1 to 1.0, and in one case with rhabdomyosarcoma of the orbit, it was increased from 0.17 to 0.7. One patient with orbital rhabdomyosarcoma died after 3.5 months. In the course of treatment, a suspicion of lungs metastasis was noted, which was subsequently confirmed.

IV. CONCLUSION

The analysis of preliminary clinical results showed that intra-arterial administration of cisplatin 1. significantly increases the sensitivity of tumor cells to radiotherapy, and, therefore, makes it

possible to activate the intensity of tumor resorption and achieve a higher clinical and functional result. However, the analysis carried out on a small number of patients and in a short follow-up period does not allow us to make final conclusions about rational chemotherapy regimens and the effectiveness of treatment in relation to tumor recurrence and the prognosis of the patient's life, therefore, research in this direction will be continued.

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