

REEXCISION OF CONTAMINATED TUMOUR BED FOLLOWING UNPLANNED EXCISION (SO CALLED “WHOOPS!” OPERATION) OF MALIGNANT SOFT TISSUE TUMOURS

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Introduction

Unplanned and illperformed excision of a malignant soft tissue tumour causes a threat for local recurrence. Presence of contaminated margin or continuity of the tumour in the resected specimen that was reported by the pathology department, creates a problem for the surgeon and the patient's survival. Irradiation of the operated field after whoops! procedure would not be a solution for this problem. Reexcision of the tumour bed with safe margin is necessary prior to external irradiation.

Patients and Method

26 patients; 11 male, 15 female; with a mean age of 40,8 (4-80) were treated by reexcision of tumour bed after unplanned contaminated excision of malignant soft tissue tumours other than our institution, between January 2010 and January 2015. Mean follow-up time was 30 months (6-58). No patients had biopsy before whoops operation. Histopathological diagnosis were 2 extraskelatal chondrosarcomas, 1 low grade liposarcoma, 3 high grade liposarcomas, 2 myofibroblastic tumours, 6 malign fibrous histiocytomas, 2 solitary fibrous tumours, 1 fibrosarcoma, 1 dermatofibrosarcoma protuberans, 4 synovial sarcomas, 2 lipoma-like-liposarcomas and 2 epitelioid sarcomas. 2 of these lesions were located in the chest wall, 3 in cruris, 4 in the groin, 2 in buttock, 2 in the back of the neck, 1 in palm, 1 on the dorsum of the foot, 1 was in the abdominal wall, 3 in the ankle, 3 in the distal thigh, 2 in wrist, 1 in distal arm and 1 was in the shoulder. All patients pathology reports revealed contaminated margin or continuity of the tumour in the resected specimen. All patients referred after whoops procedure, had MRI at least 3 weeks after initial operation. The reexcision borders were planned with the help of screening techniques due to extent of hematoma and granulation tissue.

The lesion was excised with the skin, subcutaneous tissue, fascia, muscle and when necessary with periosteum or a thin slice of bone in the depth of the wound. The reexcision plane was 2 cm in the skin and a 5 mm more than skin incision. After completion of the resection, frozen section biopsy was obtained from the walls of newly created operation bed. Wound closure was obtained primarily in 20 cases; while 2 cases required local rotation flaps, 2 required free flaps and 2 required split thickness skin grafts.

The resected specimen was investigated in the pathology department. 14 of specimens revealed microscopic rest; while in 12 specimen no tumour cells were found in the fibrosis area of old operation site.

MRI prior to reexcision suspected of tumour tissue in 46,15% of cases whereas 53,85% of MRI showed only granulation tissue. 14 patients received irradiation after reexcision. 12 patients without any tumour cells found in the resected specimen were followed up only.

Results

7 Patients had wound problems as 6 late healing and 1 partial skin necrosis. 2 patients had postoperative infection and required antibiotic treatment but both healed without any delay to irradiation treatment. Mean wound healing time was 17 days (14-21). 3 patients had wound problem after the irradiation such as superficial post-irradiation ulcers and all treated conservatively. 3 patients developed local recurrence even after irradiation and were treated by local wide excision. The histopathological diagnosis of 2 local recurrent patients was high grade tumours. No patients were amputated due to local recurrence. 2 patients developed lung metastasis and 1 of them died of the disease. 3 patient had regional lymph node metastasis. Prior to the reexcision, US examination of the regional lymph nodes were applied and 3 patients had lymphectomy, 2 with positive lymph nodes. 3 patients had adjuvant chemotherapy those of which were synovial sarcomas.

Conclusion

Even though the reexcision of unplanned surgical operation field prior to irradiation is satisfactory enough regarding the local recurrence avoidance, this procedure needs meticulous planning and experience to obtain tumour free margins. The best approach should be avoidance of unplanned surgery and keeping to the rules of musculoskeletal oncology. Aspirative drain should be used to avoid hematoma infiltration. Meticulous hemostasis should be performed and attention should be given to sharp dissection with staying in the same compartment. Sufficient preoperative imaging such as US or MRI is necessary and frozen section biopsy is helpful in distinguishing between normal and pathological tissue in the operation field. Reexcision is a technically demanding operation and should be performed in referral centers.