

THE CLINIC-PATHOLOGIC ANALYSIS OF 66 CASES WITH SOFT TISSUE SARCOMA OF ABDOMEN

Zheng Tianrong 郑天荣 Liu Xiuying 刘秀英 Li Jiancheng 李建成
Zhao Chunli 赵春利

Department of Pathology, Fujian Tumor Hospital, Fuzhou, 350014

We accepted 66 cases with soft tissue sarcoma of abdomen testified by the pathologists. The ratio of male to female was 1.5 to 1, but the aged-groups in female were more. The male incidences increased as the ages did. The mean age was 46.79 ± 17.04 . The neoplasms arises more often in the abdominal wall below 30 years old, and it does mainly in the abdominal viscera and in the retroperitoneum over 30 years old. Fibrosarcoma protuberance was the main type in the abdominal wall, and leiomyosarcoma was the main type in the abdominal viscera, and in the retroperitoneum, the most was liposarcoma, the following was leiomyosarcoma. Among the soft tissue sarcoma of the abdomen, the most was in retroperitoneum, and the following was in abdominal viscera. Therefore, it was difficult to diagnose early. The keys to the question were B-mode ultrasonic examining, computed tomography (CT) scanning and magnetic resonance imaging (MRI). Surgery was the primary therapeutic modality. The resectability was the major prognostic factor. Radiotherapy and chemotherapy indicated a clear beneficial effect on soft tissue sarcoma of the abdomen and they can slightly decrease the recurrences and the metastases, but they had no obvious influence on the survival. In 5-year survival, the lesion of abdomen was the best, and those both of abdominal viscera and of retroperitoneum were the bad. To increase the 5-year survival, what counts are early diagnosis and the resectability.

Key words: Soft tissue sarcoma, Abdomen therapy

Most soft tissue sarcomas arise in the extremities (55%-70%). Recently the therapy of the lesions of the extremities has some improvements,¹ but most of the lesions of abdomen are diagnosed so late that the result of the therapy is bad. Therefore we have studied the 66 cases with soft tissue sarcomas of abdomen in order to research the best therapeutic modality.

MATERIALS AND METHODS

Clinical Materials

General data

There were 66 cases with soft tissue sarcomas of abdomen testified by pathologists at our hospital during 1986 to 1996. 40 cases were male, 26 were female, and the ratio was 1.5 to 1. The mean age was 46.79 ± 17.04 . According to the arising sites, there were 10 cases at abdominal wall, 17 of liposarcoma, 1 of mesothelia sarcoma, 3 of fibrosarcoma, 22 of leiomyosarcoma, 17 in abdominal viscera and 39 in retroperitoneum. According to the pathologic classifications, there are 5 cases of dermatofibrosarcoma protuberan, 3 of fibrosarcoma, 1 of mesothelia sarcoma, 3 of mesenchymosarcoma, 1 of rhabdomyosarcoma, 4 of hemangiosarcoma, and 10 of unclassified sarcoma.

Clinical presentation

Accepted August 14, 1996

The abdominal masses were 56/66 (84.8%), the pain and the vague discomfort were 45/66 (68.3%), the abdominal swelling (no palpable mass) was 26/66 (39.4%), anemia and emaciation were 39/66 (59.1%), compressive symptoms were 10/66 (15.2%). The ratio of the first examination to exact diagnosis was 31 to 66 (46.97%).

Treatment

There were 35 cases of pure surgery, 9 of surgery adjuvant chemotherapy, 8 of surgery adjuvant radiotherapy, 3 of surgery adjuvant chemotherapy and radiotherapy, 6 of palliative chemotherapy and 5 of no management.

Results of Therapy

Relation between sex and age

Table 1. Relation between sex and age

Age	Total cases	(%)	Male		Female	
			cases	(%)	cases	(%)
≤ 30	14	21.2	6	42.1	8	57.1
30 — 50	20	30.3	11	55.0	9	45.0
> 50	32	48.5	23	71.9	9	28.1
Total	66	100	40	60.6	26	39.4

Relation between location and age

Table 2. Relation between location of tumor and age

Age	Abdominal wall (%)	Abdominal viscera (%)	Retroperitoneum (%)
≤ 30	4/14 (28.6)	3/14 (21.4)	7/14 (50.0)
30 — 50	3/20 (15.0)	5/20 (25.0)	12/20 (60.0)
> 50	3/32 (9.4)	10/32 (31.2)	19/32 (59.4)

Relation between location of tumor and pathologic type

Abdominal wall: Of 10 sarcomas 5 were dermatofibrosarcoma protuberance (50%), 2 hemangiosarcoma (20%), 1 mesothelia sarcoma (10%), and 2 unclassified type (20%).

Abdominal viscera: Among 17 tumors 14 were leiomyosarcomas (82.3%), 1 liposarcoma (5.9%), and 2 unclassified type (11.8%).

Retroperitoneum: Of 39 sarcomas 16 were liposarcoma (41.02%), 8 leiomyosarcomas (20%), 3 fibrosarcomas (7.5%), 3 mesenchymosarcomas (7.5%), 2 hemangiosarcomas (5.0%), 1 rhabdomyosarcomas (2.5%) and 6 unclassified type (15.0%).

Relation between location of tumor and prognosis

Table 3. The survivals of different locations

	Cases	5-year survival (%)
Abdominal wall	10	8/10 (80.0)
Abdominal viscera	17	5/17 (29.41)
Retroperitoneum	39	7/39 (17.95)

It shows abdominal wall compared with abdominal viscera ($P < 0.05$), abdominal wall compared with retroperitoneum ($P < 0.05$) and abdominal viscera compared with retroperitoneum ($P > 0.05$).

Relation between management and prognosis (5-year follow-up)

Among 10 cases of soft tissue tumor of abdominal wall, only one was operation adjuvant chemotherapy and radiotherapy, the 5-year survival is 1/1 (100%), and no recurrence and no metastases during the follow-up. And among 9 with surgery alone, the 5-year survival is 7/9 (77.8%), and 7 developed with recurrences and 2 did metastases.

Among 17 cases of the disease of abdominal viscera, only 3 were combined chemotherapy, the 5-year survival was 1/3 (33.3%), 2/3 (66.7%) occurred recurrences, and 1/3 (33.3%) occurred metastases during the follow-up. Among 14 with surgery alone, the 5-year survival was 4/14 (28.6%), 4/14 (28.6%) did recurrences, and 5/14 (35.7%) did metastases.

Relation between the management and prognosis of soft tissue tumor of retroperitoneum

Table 4. Relation between the management and the prognosis of the lesions

Management	Recurrence (%)	Metastasis (%)	5-year survival (%)
Pure operation	25/34 (73.5)	13/34 (38.2)	6/34 (17.6)
Combination treatment	2/5 (40.0)	1/5 (20.0)	1/5 (20.0)
<i>P</i> value	>0.05	>0.05	>0.05

The total 5-year survival is 20/66 (30.3%). The survival without resection and partial resection is 2/24 (12.5%), and it is 17/42 (40.5%) with complete resection in naked eye, and the *P* value is $0.05 > P > 0.01$.

DISCUSSION

Soft tissue sarcoma of abdomen occurs more rarely in comparison to the extremities. The diagnosis and the management of the former are different from those of the latter, and among those of abdominal wall, abdominal viscera and retroperitoneum, there are differences. Our data showed the male patients were more than the female with soft tissue sarcoma of abdomen, but the analyses on ages show the female was main in the young group; As the age increase, the males obviously increase relatively. It may different from that of other tumors. The mean age was 46.79. But the aged-components change as the arising locations do. The lesions of abdominal wall were more often less 30 years old, and those of retroperitoneum were the main types over 30 years. According to pathologic types, dermatofibrosarcoma protuberance was the main type of abdominal wall, leiomyosarcoma was the most type of abdominal viscera, and among the types of retroperitoneum, liposarcoma was the most type, leiomyosarcoma followed then.

The lesion of retroperitoneum was the most common site among soft tissue sarcoma of abdomen, and that of abdominal viscera followed, and that of abdominal wall was the least. Because abdominal viscera has a large space and good adaptability, there are loose tissue in retroperitoneum, the lesions are difficult to be found except that arising from abdominal wall, and it would be found often until it become much big. The big tumor often lies in retroperitoneum. The clinical presentations such as a mass and pain are not typical also. The lesion of retroperitoneum is difficult to palpate clearly its margins, and that causes much difficulty to diagnose. The data showed the ratio of the first examination and the diagnosis was only 46.97%. It should be paid more attention. The study showed that the routine B-mode ultrasonic examining is the most important for increasing the diagnostic rate, and that CT scanning and MRI are helpful to know exactly the tumor, and that the operative exploration is at last.

The main management is still surgery. It is usually known that chemotherapy and radiotherapy are not too sensitive for soft tissue sarcoma,² and that they especially have no effect on a much big mass. Recently, it was reported that radiotherapy can improve the local control of the lesions of the extremities, especially brachytherapy³ and the use of fast neutrons,⁴ and that chemotherapy was helpful to increase the survival. It was said that surgery adjuvant

radiotherapy and chemotherapy had received the local control up to 92% in the lesions of the extremities,⁵ but there was rare reports with the same result in the lesions of abdomen. The data showed that the lesions among of the abdominal wall, abdominal viscera and retroperitoneum, the 5-year survival of the abdominal was very high, and those both of the abdominal viscera and of the retroperitoneum was much lower, and that of retroperitoneum was the least. In the management of abdominal wall, surgery alone can receive a good result, one case with combination chemotherapy and radiotherapy have no recurrence and metastases up to date. Therefore, the studies indicated that combination chemotherapy may be managed in the lesions of abdominal wall. In the management of the lesions of the abdominal viscera, of the two cases with combination chemotherapy, one case had recurrence and metastasis during short-term. The combination therapy of the lesions of retroperitoneum may decrease the locoregional recurrence and metastasis, but it had no obvious effect on the 5-year survival. Among the total effects, the most obvious is still surgery. The complete resections markedly increase the 5-year survival comparison with the partial resection and the no resection. Therefore, we think whether the tumor is big or small, it should

be resected as many as possible, and then it is managed with radiotherapy and chemotherapy. In the combination therapy of the lesions of abdominal viscera and retroperitoneum, we consider that the large fields radiotherapy is necessary because the operations usually cause the implantation all over abdominal viscera and chemotherapy need new combination of modality and deeper research. To increase the 5-year survival, what counts are early diagnosis and the resectability.

REFERENCES

1. 王亚农. 软组织肉瘤的治疗进展. 实用癌症杂志 1992; 7(4): 35.
2. 毛伟敏. 影响软组织肉瘤预后的因素. 浙江肿瘤 1992; 3: 56.
3. 余子豪. 软组织肉瘤的放射治疗. 实用肿瘤杂志 1993; 8(1): 8.
4. 任传富. 快中子治疗软组织肉瘤近况简介. 国外医学临床放射学分册 1986; 9(1): 55.
5. Lilber FR, Giuliano AE, Huth JF, et al. Intravenous versus intraarterial adriamycin, 2800r radiation and surgical excision for extremity soft tissue sarcomas: a randomized prospective trial. Proc Amer Soc Clin Oncol 1990; 26: 309.