

Multiorgan Resection (Including the Pancreas) for Metastasis of Cutaneous Malignant Melanoma

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ABSTRACT

Context Several studies have demonstrated improved survival after complete resection of hollow viscus gastrointestinal metastases of malignant melanoma. Patients with metastatic disease of intra-abdominal solid organs might also benefit from complete surgical resection.

Case report The authors report the case of a 22-year-old female patient with multiorgan abdominal metastases of cutaneous malignant melanoma, including the ovary, jejunum, stomach and pancreas. All metastases were resected successfully.

Conclusion In highly selected patients with melanoma metastatic to intra-abdominal solid organs and hollow viscus gastrointestinal organs, aggressive attempts and complete surgical resection may improve survival.

INTRODUCTION

There has been an increasing incidence of malignant melanoma (MM). Patients with early diagnosed and surgically radically excised primary tumors have a high probability of being completely cured. MM is renowned for its propensity to spread to almost every organ of the body and can metastasize even years after resection of the primary lesion. Development of distant metastases portends a poor prognosis with a

median survival of 4 to 8 months [1]. The 5-year survival rate of localized stage IA melanoma is 95% which decreases to 67% for nodal disease and less than 20% for distant metastasis [1]. Our patient demonstrates concurrence with several other studies, namely, that radical resection of distant melanoma metastases can result prolonged long-term survival in carefully selected patients.

CASE REPORT

A malignant melanoma (Clark III, Breslow 2 mm) was excised from the back of a 22-year-old female patient in March 1999. Postoperatively, 3x10⁶ ME Intron A (Interferon alfa-2b, Schering-Plough Corporation, Kenilworth, NJ, USA) was administered weekly for a year. Follow-up occurred by protocol until December 2002 when control X-rays were interrupted because of pregnancy. In March 2004, a node behind the left sternocleidomastoid muscle was discovered and removed; histology verified the subcutaneous metastasis of malignant melanoma. In May 2004, further subcutaneous nodes developed in the right axilla and they were removed. Histology revealed metastases of malignant melanoma. After the third lomustine (CeeNU, Bristol-Myers Squibb Company, Princeton, NJ, USA) and dacarbazine (DTIC) (Ben Venue Laboratories, Bedford, Ohio, USA) treatment in August 2004, computed tomography (CT)

detected metastasis in the right ovary and this was removed. Histology verified metastasis of malignant melanoma. In December, abdominal ultrasound (US) verified another solid lesion in the region of the left ovary but, at this point, the patient refused surgical intervention. In January 2005, she was admitted for the fifth session of poly-chemotherapy: 5x330 mg of DTIC, 2x1 mg of vincristin (Richter Gedeon Rt., Budapest, Hungary), 80 mg of lomustine and 15 mg of bleomycin (Biogal Pharmaceutical Co., Debrecen, Hungary) were administered. In February (as the patient approved the operation), she was completely staged by means of abdominal ultrasound, a CT scan of the chest, abdomen and pelvis, and bone scintigraphy. The US verified metastases in the left ovary and in the body of the pancreas. Sonographically, the metastasis of the pancreas appeared hypoechogenic compared to a normal pancreatic parenchyma. The abdominal CT scan showed the presence of metastases in the left ovary, 6x4 cm in diameter, in the body of the pancreas and in the jejunum. CT demonstrated a hypodense lesion bulging out of the contour of the body of the pancreas, without differences in density.

During the course of the operation, two further metastases were detected in the distal part of the stomach, one on the anterior and another on the posterior wall.

As the patient refused resection of the left ovary, a metastasectomy was performed. The metastasis of the small bowel was located in the distal third of the jejunum and was almost concentric. A 30 cm long jejunal segment was resected with an extended resection of its mesentery because of the numerous enlarged, palpable lymph nodes. Reconstruction was performed with an end-to-end jejunostomy. A metastasis, 6 cm in diameter, was bulging out of the organ contour on the upper edge of the body of the

pancreas. Resection of the metastasis was done by ultracision (Ethicon Endo-Surgery Inc., Cincinnati, OH, USA) with a 0.5 centimeter wide margin. The surface of the resection was covered with mesh (Surgicel, Ethicon, Cornelia, GA, USA). Because of the metastases of the stomach, a Billroth I resection was performed. All resected specimens proved to be metastases of malignant melanoma and all resection margins were tumor-free. We found no enlarged or metastatic lymph nodes while exploring the retroperitoneum. We also found 5 hemangiomas in the liver, each 0.5 cm in diameter, which were histologically verified. We closed the abdomen leaving a drain adjacent to the area of the pancreatic resection.

There were no major postoperative complications and the patient was discharged on the 9th postoperative day. A control CT scan was performed three months after the operation which demonstrated no abdominal recurrence.

A later CT scan verified brain metastases and the patient received telecobalt irradiation. The patient died 4 months after the abdominal operation.

IMAGES

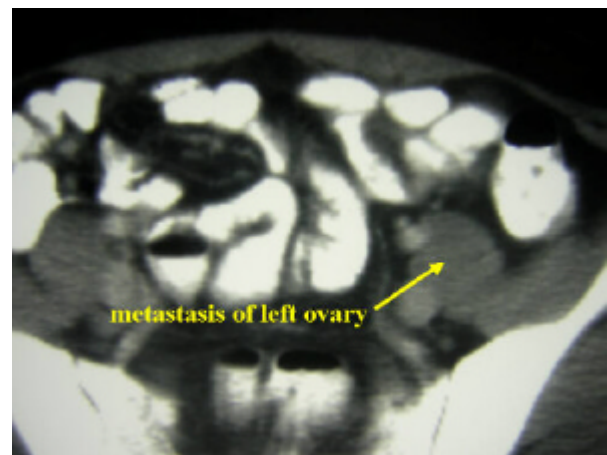


Image 1. Abdominal CT scan of the metastasis in the left ovary.

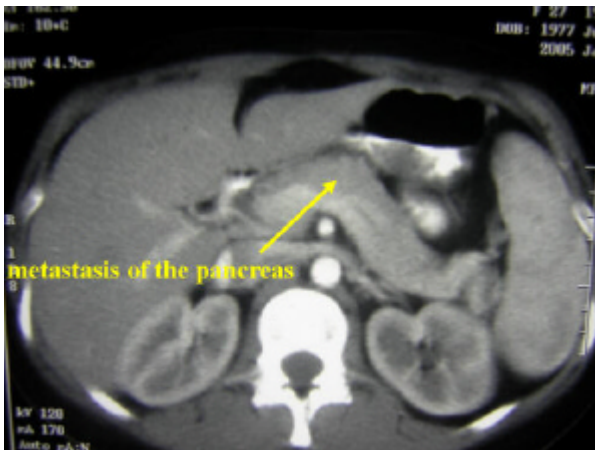


Image 2. Abdominal CT scan of the metastasis in the pancreas. The metastasis is bulging out of the organ contour on the upper edge of the body of the pancreas as a hypodense lesion, without differences in density.

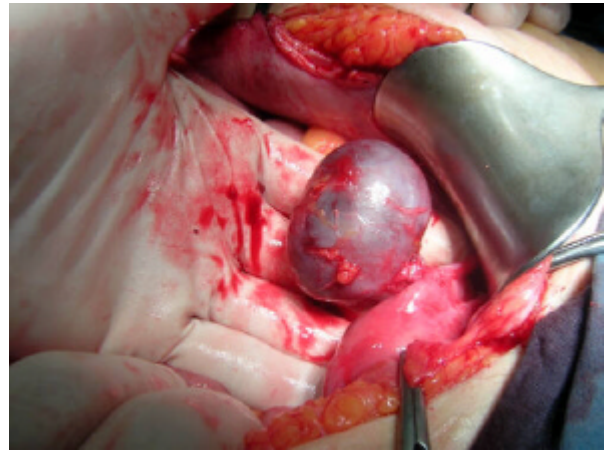


Image 5. Metastasis in the left ovaryium 6x4 cm in diameter.

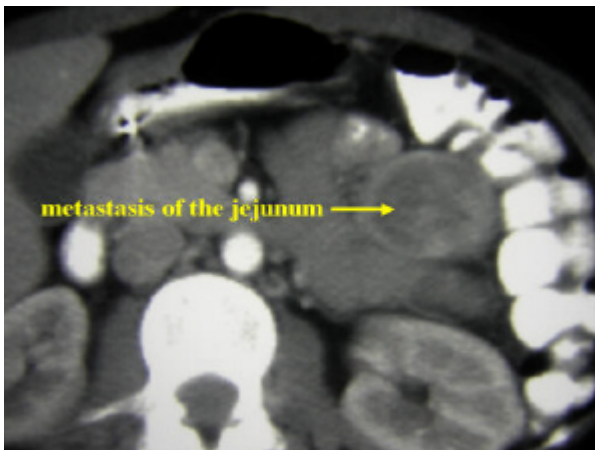


Image 3. Abdominal CT scan of the metastasis in the jejunum.

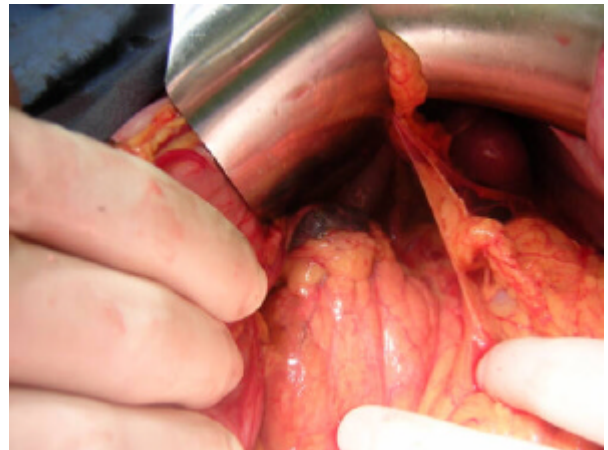


Image 6. Metastasis in the pancreas on the upper edge of the body, 6 cm in diameter.

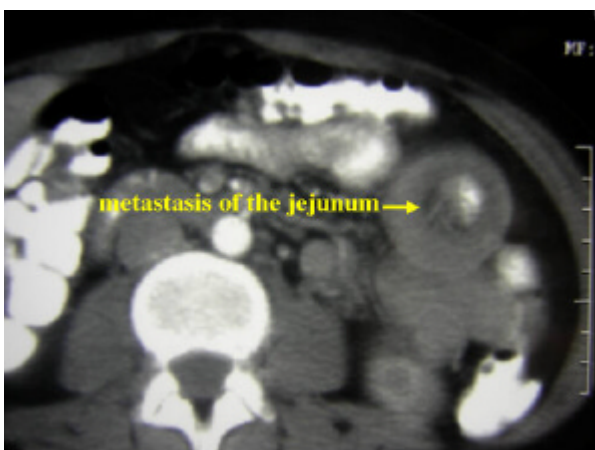


Image 4. Abdominal CT scan of the metastasis in the jejunum. The almost concentric metastasis caused mild complaints of obstruction.

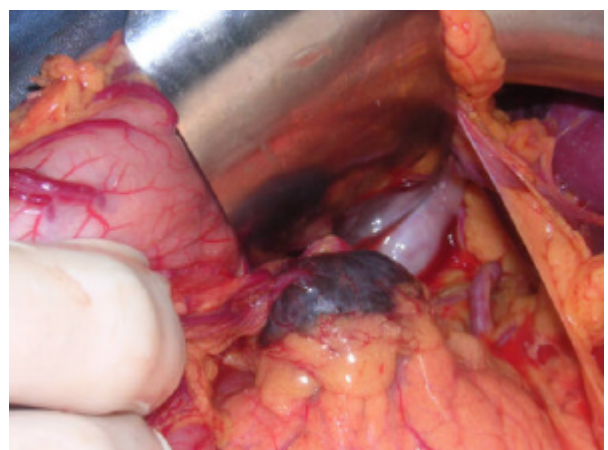


Image 7. Metastasis in the pancreas I.

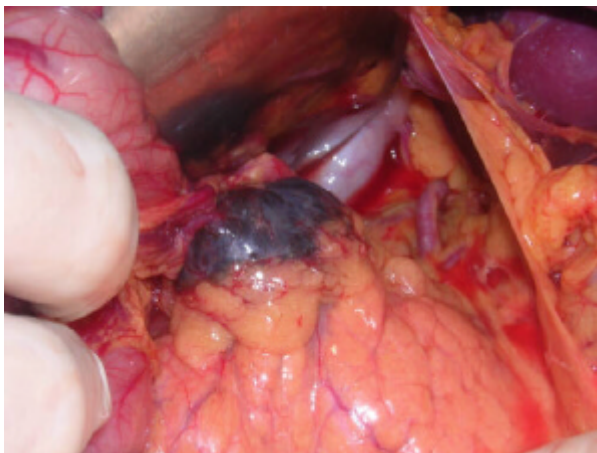


Image 8. Metastasis in the pancreas II.

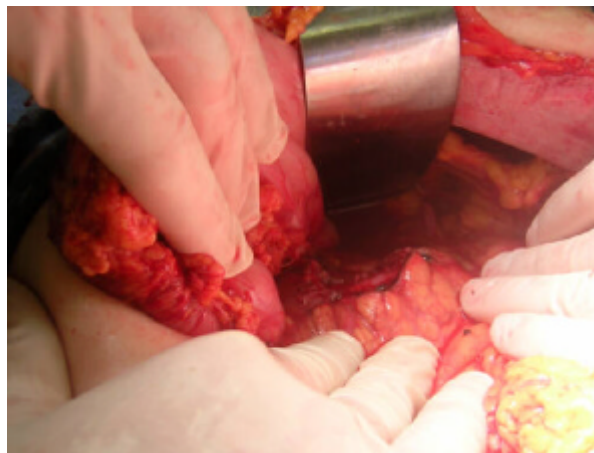


Image 11. Anatomic situation after resection of the metastasis in the pancreas.



Image 9. Almost concentric melanoma metastasis of the jejunum.

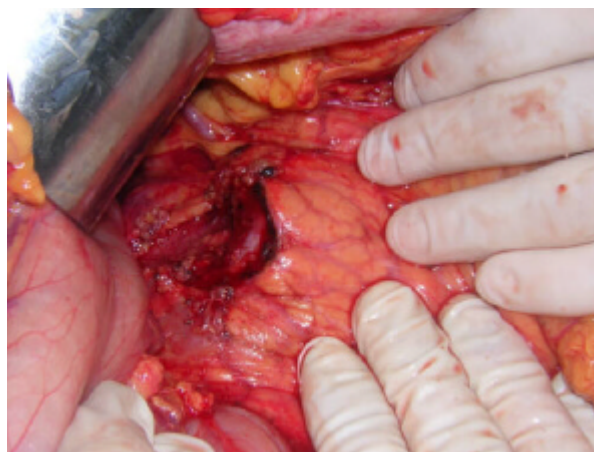


Image 12. Resection margins of the pancreas.

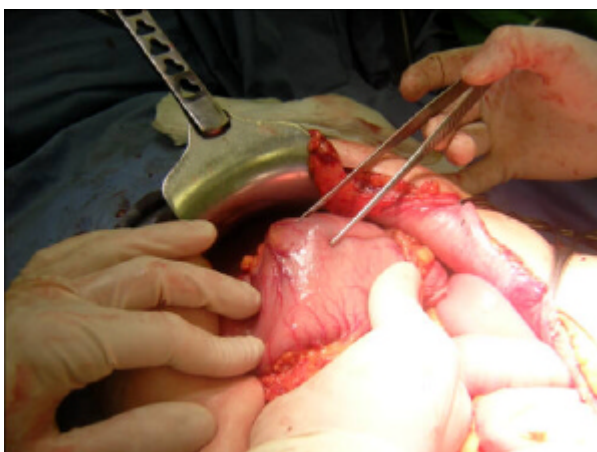


Image 10. Metastases in the distal part of the stomach, one on the anterior and the other on the posterior wall, each 2 cm in diameter.

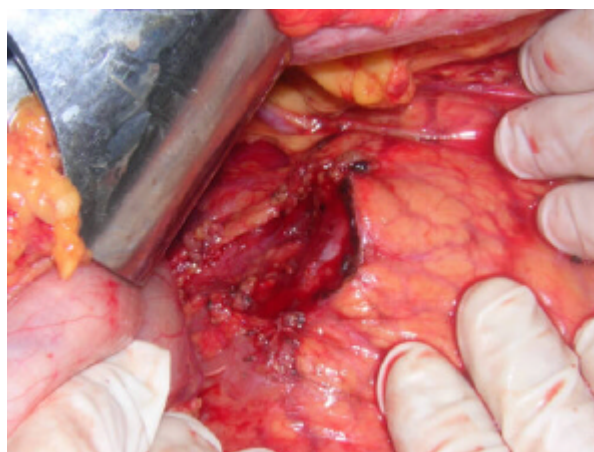


Image 13. The resected pancreas and lienal artery.

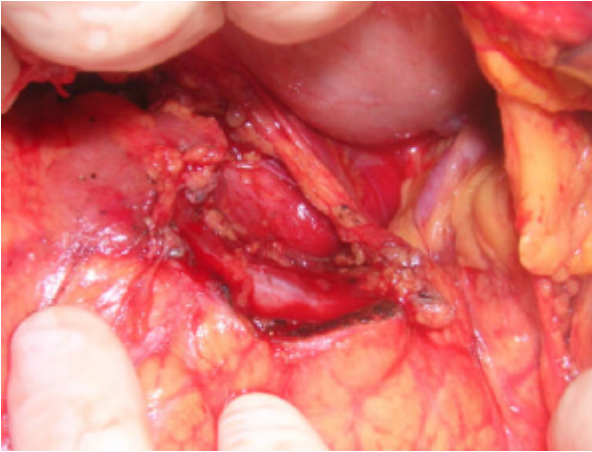


Image 14. Lienal artery behind the resection surface.

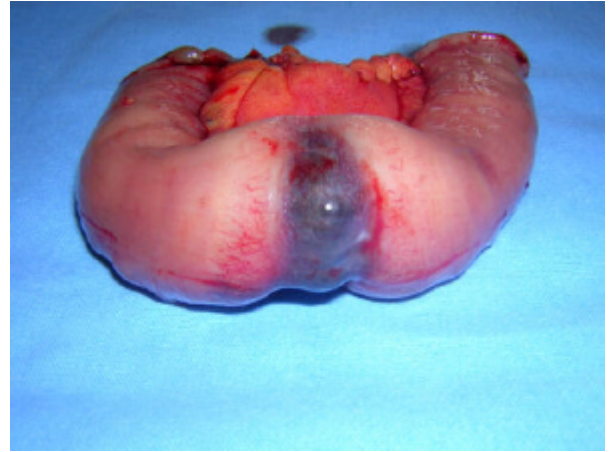


Image 17. Resected jejunal segment I.

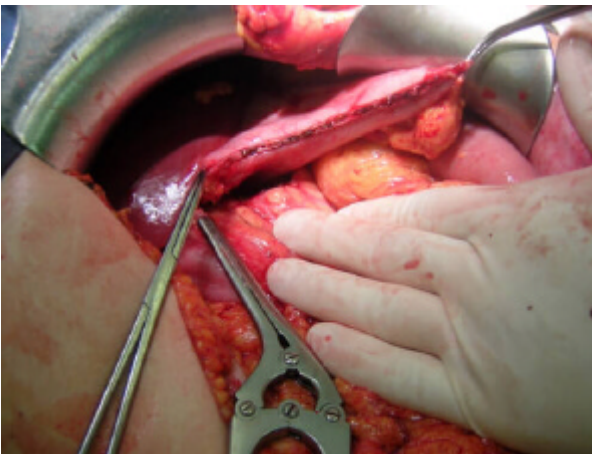


Image 15. Gastric and duodenal stump after Billroth I gastric resection.



Image 18. Resected jejunal segment II.



Image 16. Billroth I gastric resection and reconstruction. The pancreatic resection surface covered with mesh (Surgicel, Ethicon, Cornelia, GA, USA).

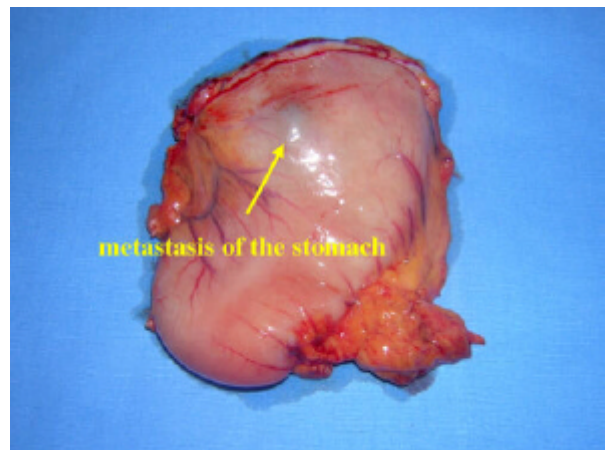


Image 19. Resected stomach.

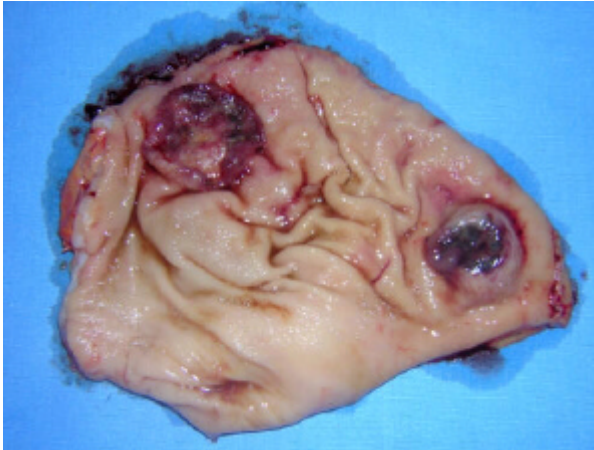


Image 20. Metastases of the stomach.

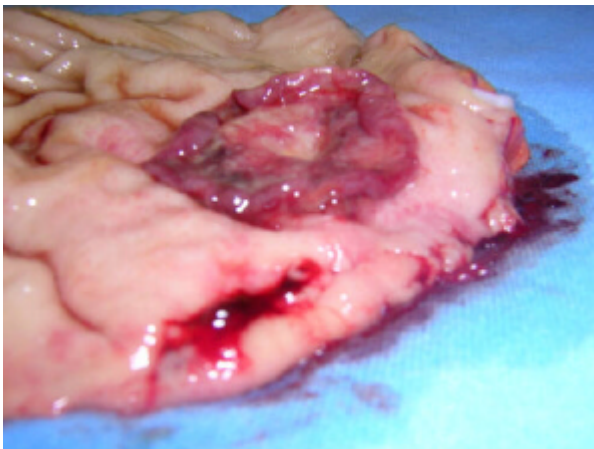


Image 21. Metastasis of the stomach.

CONCLUSION

The natural course of cutaneous MM depends on histologic subtype, tumor thickness, ulceration, gender and localization of the primary tumor, and is determined by its metastatic spread. Melanoma metastasis develops via three main metastatic pathways: regional lymph node metastases (about 50%), satellite or in-transit metastases (about 20%), or immediate distant metastases (about 30%). For American Joint Committee on Cancer (AJCC) stage IV patients with multiple distant metastases, surgical resection has been considered of little value for the management of a disseminated disease. The current standard treatment of multiorgan abdominal metastases of cutaneous malignant melanoma is not surgical resection.

The many reports of long-term survival after resection of distant melanoma metastases to soft tissue and organ sites clearly indicate that surgery can be successful in carefully selected patients [1, 2, 3]. Complete resection of multiple organ-site metastases can result in overall survival rates similar to those after complete resection of single-organ site disease. Patients with completely resected metastases can experience improved overall survival and long-term cure regardless of the metastatic organ site and number of metastases [2]. In contrast, survival after incomplete resections is not better than that of non-operated patients [1]; therefore, incomplete resections should be done only for palliation of symptoms.

Though we have lost our patient, we believe that, in selected patients and in special cases like ours, the age of the patient and the infant born during the period of the disease justifies every effort we have made, to prolong survival.

Received November 17th, 2005 - Accepted December 13th, 2005

Keywords Melanoma; Neoplasm Metastasis; Pancreatic Neoplasms

Abbreviations AJCC: American Joint Committee on Cancer; DTIC: dacarbazine; MM: malignant melanoma

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References

1. Wood TF, DiFronzo LA, Rose DM, Haigh PI, Stern SL, Wanek L, et al. Does complete resection of melanoma metastatic to solid intra-abdominal organs

improve survival? *Ann Surg Oncol* 2001; 8:658-62. [PMID 11569781]

2. Essner R. Surgical treatment of malignant melanoma. *Surg Clin North Am* 2003; 83:109-56. [PMID 12691453]

3. Croce C, Del Chiaro M, Dinelli E, Gremmo F, Signori S, Vistoli F, et al. Pancreatic metastases from renal carcinoma. *JOP. J Pancreas (Online)* 2005; 6(5 Suppl):519. [PMID 16186672]
