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DISCUSSION

DR. GEORGE L. JORDAN, JR. (Houston): Dr. Warren has been a strong proponent of an aggressive attack upon disease in this area, and I rise to support this contention.

Our experience with this disease is somewhat smaller than his, but our experience with 95 consecutive operations of this type for periampullary malignancies parallels his own series. Some of our patients were operated upon by some of our residents, and therefore our overall mortality rate is somewhat higher than his. But if we look at the patients operated upon by members of our faculty, the mortality rates are almost identical, because throughout our entire experience the mortality rate among that group has been 13.5%. Also, our survival rates are very similar.

Among all of our patients who have been operated upon more than three years ago, the three-year survival rate is 25%. This includes patients who died postoperatively, as well as the long-term survivors. Thus, there is a high salvage rate in this group, much higher than is generally appreciated.

Some of those patients who survived three years died before reaching the five-year period, but without disease. But we also have a significant number of five-year survivals.

I agree completely with his insistence upon categorization of the lesion. The best results we have obtained, as has he, are in patients with carcinoma of the ampulla of Vater, where our five-year survival rate is 37%.

Lastly, I would like to make a plea that I have made before to follow these patients carefully, and to attack vigorously any evidence of apparent recurrent disease, because it is too easy to presume that when the patient develops new abdominal symptoms, he now has recurrent carcinoma, and there's nothing else that one can do.

There have been a number of patients in our series who have been reoperated upon with symptoms of recurrent disease who were found to have benign disease which could be treated and salvage accomplished. There have been other patients who have developed a second, entirely separate, independent carcinoma which could be treated. One of our patients with carcinoma of the pancreas, for example, was not only a five-year survival following treatment of his carcinoma of the pancreas, but also a five-year survival following treatment subsequently of a carcinoma of the colon. Therefore, things are not always what they seem, and it behooves us to treat all of our patients aggressively, and to continue our treatment until we know that they have totally incurable disease.

DR. WILLIAM M. REMINE (Rochester, Minnesota): I rise in strong support of Dr. Warren and his philosophy regarding carcinoma of the pancreas, duodenum, and ampulla, because, as he indicated there, the mortality in the untreated cases is very high. We have summarized our experience with pancreaticoduodenectomy in 1963 with 239 cases, and at that time we had an 18% five-year survival of head lesions. One of these

was a malignant lesion of the islet of Langerhans, and we felt that it was worthwhile to pursue the problem further even though the survival was low and there was lots of room for improvement.

We, therefore, began to look at the possibility of total pancreatectomy, because of the inability to detect the outer limits of the lesion as it expands into the head of the pancreas, and also because of the possibility of multicentric lesions.

In 1970 we summarized our experience with total pancreatectomy, and at that time we had 36 cases. Since then, we have summarized our experience again recently with 28 more cases for a total of 64 patients treated with total pancreatectomy.

I'd like to give you just a few of our findings in that series. Initially we had a 27% five-year survival with total pancreatectomy. The series was small, and so we don't know that it is highly indicative, except that it's encouraging.

In the more recent series we have reduced our operative mortality, which was originally 16% through 1968. From '68 to '70 it was reduced to 11%, and since 1970 it's been 7.4%. We feel this is a marked improvement and a better selection of patients. Prior to 1968 we were operating on patients with very large lesions that required total pancreatectomy for their removal.

In the total series, the longest survivor in the group, with adenocarcinoma of the pancreas, lived six years and eight months. There is a patient still alive who had rhabdomyosarcoma who has remained alive for 14 years after removal, and, since then, he's had another operation subsequently for a stricture of the hepaticojejunostomy. I think this man would have been written off as a recurrence if we had not operated on him with the hope of being able to do something for him.

Of the nine patients with ampullary carcinoma, the longest survivor remains alive 6½ years after total pancreatectomy. Two patients survived three or more years, and four patients remained alive for one or more years. There were four patients with cystadenocarcinoma; the longest survivor lived about five years, or four years and nine months.

I would like to ask Dr. Warren if they have checked their specimens for evidence of multicentricity. When we went over ours we found that nine of the patients with total pancreatectomy with malignancies had multicentric lesions. We feel this is very important if you are going to eradicate all of the malignant problem. If so, what percentage did they have?

I think the high degree of pessimism in certain quarters with regard to this problem is totally unwarranted. I feel we need to strive more diligently in this direction if we are going to get people well. I think earlier diagnosis, of course, is the key to the whole problem.

DR. GEORGE CRILE, JR. (Cleveland): I think it's generally recognized that there is a striking difference in prognosis between gastrointestinal tract tumors that are polypoid and those that are invasive and ulcerating. This has certainly been true in our experience in the ampullary lesions. We have only one long-term survivor of an infiltrating, as opposed to a polypoid tumor.

This makes a lot of difference if you are dealing with older and debilitated people, because it's too bad to run a great risk of immediate death by doing a big operation on someone who has very little chance of being cured. So if you can select the polypoid tumors, you are ahead. I think we can do that today by the technique described by my associate, Dr. Esselstyn, namely, at the time of operation, if your endoscopist is not able to routinely visualize the ampulla, you can guide his scope to the ampulla and evaluate this without running any risk of contamination of the peritoneal cavity.

I have been very much impressed with the mortality rates that have been quoted, but I think it would be unfair not to point out that these are not average mortality rates. The average mortality for the radical operation in the professional hospital audit is reported at 32%.

If your patient can live a little longer and have more years of life with a conservative operation rather than a radical one, in selected cases that may be best.

DR. KENNETH W. WARREN (Closing discussion): I want to thank each discussant. I shall start with Dr. Crile. I agree with him that all of us die sooner or later. We were on a panel together in New York recently, and he said "Death is never a victory." I told him it was if you went to heaven.

We did not break down the long-term results of various types of ampullary carcinoma. They can be polypoid, flat and invasive; they can invade the head of the pancreas and make it impossible to determine the precise origin. The distinction is very complex and relates primarily to the modes of spread.

I agree with him that if a person is very ill, old, and an extremely poor risk, and the tumor is of questionable resectability, I would do a bypass. One thing I neglected to say: if a patient has exploratory laparotomy and nothing is done—but has diffuse carcinomatosis—these patients

live an average of five months. If they have a bypass procedure, they live an average of nine months. If they have a resection for ductal carcinoma of the head of the pancreas, the mean survival is 15 months.

Endoscopy is important. We do endoscopic studies frequently, but would almost never reject a patient for operation upon endoscopic findings. Endoscopy may give valuable information, but it is not definitive.

Total pancreatectomy—we went around this horn many years ago—and as I have told Dr. ReMine before, I think one of the reasons we got discouraged was probably because we were applying total pancreatectomy at that time to patients who should not have had the tumor resected at all. We must keep an open mind about this procedure and see what the survival rates are after many patients have had followup studies for many years. In evaluating total pancreatectomy, we must know the precise cell type of these tumors.

Dr. ReMine, I cannot tell you the percentage of multicentric tumors. We do not recognize multiple tumors. We often reject some of them because of multicentric involvement associated with other evidences that indicate that they probably are not suitable for resection.

I do not like the argument advanced by some surgeons that a total pancreatectomy will have a lower operative mortality because it is not necessary to anastomose the pancreatic duct. The pancreatic duct, properly anastomosed, is not a real problem.

Dr. Jordan, I think the fact that he has an attitude that parallels ours explains the reasons that his statistics parallel ours. The most pertinent thing that Dr. Jordan said that would correlate with our experience is the urgency for not writing off these patients when they have recurrent abdominal symptoms, unless they have very obvious evidence of recurrence and perhaps even diffuse recurrence. This applies particularly to those patients in whom jaundice may develop many years later and may have a benign stricture of the choledochojunostomy.