omatic treatment because some UK physicians felt that the toxicity of chemotherapy meant that minor changes in survival were of little clinical value. In other words, the central question being addressed was quality of life. The results showed that the patient's perception of quality as judged by the questions in the diary card was the same in both arms. This means either that the instrument was too insensitive to pick up a large difference in quality of life between the 2 approaches or, more likely, that these differences are small compared with the ravages of the disease itself. The result implies that the supposition of the clinicians was wrong. It follows that the undoubted survival advantage shown for the CT group was worthwhile. There were great problems with compliance which was, as expected, shown to be related to participating centers and not to patients.

So where do we go from here? First, we should not all go away and invent our own quality of life measures. There is enough difficulty in this field without having a plethora of unvalidated procedures to cope with. Much more work needs to be done in validating the measures that we do have. We do not know how frequently to apply the measurement, whether to make a few questions daily as with a diary card, or a lot of questions every 3 months, as with the EORTC questionnaire.

In the application of the measurement of quality of life, only those studies where 2 treatment policies are being randomly compared and will be worthwhile, either because the results of treatment will be the same, and the quality of life different, or because the results of treatment will be different (as in the MRC study), but the quality of life is the same. It will always be true, of course, that for an individual patient, a quality of life measurement is no substitute for a kindly, well trained doctor who listens to what he is being told.

The second problem that was discussed at length at the Conference was the control of nausea and vomiting. This is a matter of great importance to the patient, and in the last 5 years there have been many studies to try to determine which agents are effective, and what the optimum dose, timing and route of administration of antiemetic drugs is.

Here one must pay tribute to the workers at Sloan-Kettering because they have provided a considerable impetus for many of these studies. They presented data on 2 combination antiemetic regimens at this meeting. In the first, an oral combination of high dose metoclopramide, dexamethasone, and diphénylhydramine was assessed in a single-arm study. They found it to be effective against the early vomiting caused by doxorubicin (Adriamycin), and the late vomiting caused by cyclophosphamide in the CAV regimen. The antiemetic appeared well tolerated, with the main side effects being sedation and restlessness. They took considerable care to make sure that all the doses of the drugs were taken, and I think it is important to realize that meticulous attention to detail is as important with antiemetic therapy as it is with the administration of cytotoxic drugs. In the second study, they reported on their experience with high dose metoclopramide, dexamethasone, in combination with either diphénylhydramine or lorazepam, given intravenously. Although equivalent, and effective, in terms of antiemetic properties, the lorazepam-containing regimen was preferred by patients because they forgot what had happened. This amnesia is obviously a very important thing for patients, and Dr. Gralla and his group stress that patient preference is not quite the same thing as antiemetic power.

In a similar smaller study, Sridhar and Cairns tested diphénylhydramine, droperidol, metoclopramide and dexamethasone in controlling the vomiting due to cis-platin and found it very effective. These more complex antiemetic regimens are now being assessed in randomized trials, and I think this is very important because of the considerable psychologic component in drug-induced vomiting and the difficulties in assessment of antiemetic efficacy. Complex drug combinations, given intravenously, may be needed to control vomiting due to cis-platin and other agents, but each of these regimens must be tested against simpler protocols, and we await the results of these studies with interest.

Finally, 2 Italian groups presented studies concerning the efficacy of pain control due to metastatic lung cancer and following thoracotomy. Many more studies are needed in this important area, and Bachiocco and his colleagues at the University of Bologna have presented data using a variety of measurements of pain control post-thoracotomy. No randomized comparison of different methods of producing pain relief has been presented, but this is an important aspect of supportive care, and we can perhaps look forward to progress in the next few years.

In summary, concern for quality of life and control of symptoms of disease and treatment, has now taken on a wider meaning than simply recording the incidence of toxic reactions. This is as it should be and I hope that some of the difficult methodologic problems may at least be partly resolved by the time of the next meeting.

Update in Surgery

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It was quite gratifying to see so many thoracic surgeons participating in this year’s World Conference. Indeed, there were 120 surgical papers and posters presented at this meeting, and it is particularly encouraging to see that surgeons are closely collaborating with basic scientist, with pathologist, radiation oncologist and medical oncologist. The willingness of thoracic surgeons to enter into a multi-disciplinary approach to neoplasms in general, and particularly thoracic neoplasms, is very encouraging.

It was interesting to see the number of papers that were devoted to the management of mediastinal nodal disease. Sawamura and Naruke and their Japanese colleagues reported a remarkably high survival rate in patients undergoing resection of mediastinal nodal disease. The Lung Cancer Study Group pointed out that survival in patients with N1 disease relates not just to the presence of N1 disease, but to the location of N1 disease, and to the amount and the number of lymph nodes involved. The data indicate that with 1 lymph node positive in the paratracheal position, we can expect up to 30% to 35% survival in patients with resected N1 disease. Cooper and his colleagues from Toronto very appropriately pointed out that all that glitters is not gold; they have pointed out that mediastinal node disease that is defined by cervical
mediastinal exploration has a much worse prognosis following surgery than that discovered at the time of thoracotomy. Papers from England and West Germany pointed out that a positive CT scan is frequently a false positive, and they have encouraged that mediastinoscopy be performed to confirm this finding. They also pointed out that in the presence of a negative CT scan it was most unlikely that mediastinal lymph node involvement would be found at cervical mediastinal exploration. I would like to interject a word of caution here. I hope that these reports do not give rise to an indiscriminate attack on patients with mediastinal lymph node disease, but rather I hope that they will stimulate a more careful reassessment of our management of the patient with N2 disease.

Since the last World Conference, the role of laser therapy has been more carefully defined. This effort has been led by Hayata and colleagues from Tokyo, and major contributions have been made at this meeting by the group from Montreal. It appears that laser therapy is a very effective palliative tool for endobronchial disease, and even in a few instances can convert tumors originally requiring pneumonectomy to ones that are satisfactorily treated with lobectomy. Therefore, it appears that laser, particularly YAG laser, and the hematoporphin techniques are here to stay, and have established themselves in the armamentarium of the management, in a palliative fashion primarily, of endobronchial disease.

The role of surgical adjuvant therapy has again been vigorously debated at this meeting. The role of surgical adjuvant radiation therapy remains controversial in many minds, but evidence is accumulating that while it may not prolong survival it certainly does decrease local recurrences in the irradiated field. I would like to point out to Dr. Stout that indeed a prospective randomized trial stratifying for cell type and nodal involvement has been performed and completed. The ability of preoperative chemotherapy and radiation therapy to convert extensive locoregional disease to resectable disease was reported by Faber, as well as by Strauss and Spain from America. The response rates of these 2 modalities preoperatively in locoregional disease is 60-70% and the resectability rate with an excess of 80%. This is quite impressive; however, it remains to be seen if this will be translated into improved survival. A number of prospective trials evaluating these preoperative so-called neo-adjuvant modalities are taking place.

The reports of surgical adjuvant immunotherapy continue by and large to be negative. The lone positive study reported at this meeting was by Yasimoto, who found that intrapleural nocardia cell wall skeleton prolonged postoperative survival. This was a 2-arm study with chemotherapy in 1 arm and chemo-immunotherapy in the other arm. However, Hayata and his group reported negative results with the use of nocardia cell wall skeleton in a prospective randomized trial. Stack from Scotland reported a negative trial employing intradermal BCG and tumor cell vaccine in a carefully controlled prospective randomized trial. Finally, yet another negative study with levamisole was reported by the Sapporo group, and in this same study they also reported negative results with the use of the biologic response modifier OK432.

There was much discussion at the meeting regarding prognostic factors, and based on this new information that was generated by studies reported at this meeting, Mountain and his international committee have proposed a much needed new staging system. This is clearly 1 of the most important achievements reported at this conference.

There are a large number of papers on surgical technique.

Sleeve lobectomy was the subject of considerable discussion. Deslauriers from Quebec reported a large series with excellent results even in patients with hilar lymph node involvement. The group from Shanghai also reported good results with sleeve lobectomy and with good postoperative pulmonary function. In addition, other studies indicated that segmental resection may be as good as lobectomy in patients with small T2N0 lesions. While this fact is yet to be proved, there seems to be mounting evidence that indeed less than lobectomy is adequate in patients with small T2N0 lesions.

The technique of high frequency jet ventilation for anesthesia in operations requiring tracheal and carinal resection was described by the surgeons from the People's Republic of China, and also by a group from Italy and France. They reported excellent results with these very difficult procedures, indicating that this form of anesthesia is a major advance in this area.

I would like to mention the discussion that centered around mesothelioma. The consensus of the discussion was that mesothelioma is not a systemic disease. Mesothelioma rarely presents with systemic manifestations. It is by and large a locoregional disease, and the efforts at controlling the locoregional disease should be highest on our priority list. And indeed, Faber presented techniques from pleuro-diaphragmatic pneumonectomy that were encouraging, but nevertheless, even for radical surgery, local recurrence is a major problem, not systemic recurrence, in contradistinction to other forms of lung cancer. Further attempts to develop better techniques for locoregional treatment in mesothelioma is the area to which we should direct our research.

The role of surgery in small-cell carcinoma of the lung has been discussed extensively. Originally, there was great encouragement for the role of surgery in the attempt to control locoregional disease. All of the studies have been basically non-randomized and anecdotal. In general, most surgeons feel encouraged that surgery is helpful in controlling local recurrences. However, there are a few studies that are beginning to indicate that there may well be limitations to the role of surgery, even in limited small cell carcinoma of the lung, and that perhaps patients with mediastinal disease may benefit from surgical intervention. Obviously the answer to this problem awaits a prospective randomized trial, and such a trial is under way.

Finally, on behalf of the surgeons participating in this Conference, I would like to thank the organizing committee and in particular Ron Feld and Bob Ginsberg for their outstanding efforts in making this a most successful conference.