Questions and Answers on Cancer

Phenyl-beta-naphthylamine

Recent investigations have disclosed that phenyl-beta-naphthylamine can undergo N-dephenylation in humans, with recovery of small amounts of beta-naphthylamine, a potent carcinogen, in the urine of exposed subjects. Has bladder cancer or any other form of cancer been associated with exposure to phenyl-beta-naphthylamine?

M.D., Peoria, Illinois

Phenyl-beta-naphthylamine is manufactured in this country by BASF Wyandotte Company. In the past it had been used in the manufacture of rubber tires. According to the company only 10 lbs. was used in the U.S. last year.

There are a number of chemicals used in rubber manufacture, notably benzene, and occupationally exposed workers in the rubber industry have been reported to have excess rates of bladder cancer and leukemia. But it is not possible to attribute any of the higher risk to use of phenyl-beta-naphthylamine.

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Hodgkin's Disease

My patient is a 21-year-old auto mechanic with the proved diagnosis of Hodgkin's disease, stage III/B of mixed cellularity, discovered in May of 1977. He was completely staged and retroperitoneal nodes were negative, as was the spleen. During the first cycle of MOPP chemotherapy he developed an unquestionable allergy to procarbazine, and a small re-challenge brought back the anaphylactoid reaction. I was then forced to use the ABVD regimen of Dr. Bonnadonna. After three cycles of ABVD, he received irradiation of up to 3000 rads to the bulky sites, according to the suggestion of Dr. Leonard R. Prosnitz (Ca 26:2826, 1976). Soon he will complete his sixth and last cycle of ABVD.

Most reports state that ABVD is comparable to MOPP; one exception is a short abstract that appeared in the Proceedings of the Society of Hematology meeting held in San Diego last December. This report prompts me to ask you two questions:

1) Do you give much credence to this recent assertion that ABVD is not as effective as MOPP?

2) If you agree with this report, would you recommend that this man (stage III/B of mixed cellularity) be followed by a total nodal irradiation in the usual manner, as suggested by the Stanford group?

M.D., San Clemente, California

The MOPP program remains the standard and most proven chemotherapy regimen for the treatment of Hodgkin's disease. There are a number of other combinations which have been reported to produce complete response rates comparable to those of MOPP, but none has shown the quality or duration of the MOPP response, at least as reported by DeVita and confirmed at Stanford.

The MOPP program can produce 80% complete response, on the average, for all patients treated; two-thirds of the complete responders remain free of disease at five and 10 years on an actuarial basis.

The ABVD program of Dr. Bonnadonna has been compared to the MOPP regimen; the ABVD treatment is a combination modality in which radiation is also given. To date these two approaches show equivalent results. However, there are not enough data in the literature to demonstrate how ABVD, used alone as a primary treatment, compares with MOPP.

With regard to the patient with clinical Stage III/B, but pathological Stage II/B Hodgkin's disease of mixed cellularity type, the following comments can be made:

The Stanford study shows that patients with pathologic Stage II/B disease do not benefit from adjuvant chemotherapy if total nodal radiation is given. If, in fact, the patient had pathologic Stage III/B disease then radiation therapy is an inadequate treatment program and chemotherapy should be the primary approach. If, as has been described, there has been an allergy to procarbazine one can substitute for procarbazine in the MOPP regimen, utilizing a nitrosurea or adriamyacin. As stated, the ABVD regimen may be equivalent, but would not be the first choice in a primary treatment program. There are experimental and chemotherapy for Stage III/B disease but the role of radiation therapy has not yet been established. If the patient has pathologic Stage II/B disease and has received 3,000 rads to known sites of disease as well as 6 cycles of ABVD, this can be considered a very acceptable treatment program since, in this case, the ABVD will be given as an adjuvant and the radiotherapy is the major form of disease control.

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