CORRESPONDENCE

Chemotherapy-related conversion of tumor

To the Editors:

I would suggest that the title of the report by Deppe and associates, "Transformation of endodermal sinus tumor to dysgerminoma following chemotherapy," (AM. J. OBSTET. GYNECOL. 139:970, 1981), is misleading, and that the report does not really compare, as stated in the introduction, with the report of DiSaia and associates,[1] since there really was no "chemotherapy-related conversion." Although the tumor in question is reported by Deppe and associates to be an endodermal sinus tumor in the title of their report, one reads in the body of the report that it was, in fact, a "mixed germ cell tumor with *predominantly* [italics mine for emphasis] endodermal sinus tumor histology, but with some choriocarcinoma elements and a few areas of dysgerminona." It is well known that malignant germ cell tumors are not always purely of one cell type, but often have several cell types, including endodermal sinus tumor, choriocarcinoma, dysgerminoma, or immature teratoma.[2]

The report by Deppe and associates is, therefore, not too surprising in view of the fact that one of the cell types originally present in the tumor seems to have been resistant to the chemotherapy utilized. As stated in the report by the authors themselves, "it is attractive to hypothesize that the chemotherapy destroyed all of the cell lines except the dysgerminomatous elements, allowing these to proliferate." However, what was fascinating in the report by DiSaia and associates was the postulated "retroconversion" of immature teratoma, secondary to chemotherapy, to mature teratoma, or dermoid, which did not happen in the case reported by Deppe and associates, wherein some of the originally immature elements present before chemotherapy were still present in the same immature form after chemotherapy. Malignant immature elements persisted in the report by Deppe and associates, whereas in the report by DiSaia and associates, all immature malignant elements seemingly vanished after chemotherapy, with only benign mature elements persisting, or "retroconverted." A comparison of these two reports is no different than a comparison of ovaries to apples and oranges. Had some speculation been made, or actual performance of in vitro testing of different cell types to different chemotherapeutic agents to determine sensitivities and/or resistances of different cell types to different agents, prior to therapy, as one does with bacteria and antimicrobial agents, then the report by Deppe and associates might well have added to our fund of knowledge. As it is, it is a mildly, perhaps, interesting case report, but without anywhere near the significance attributable to the report by DiSaia and associates.

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REFERENCES

1. DiSaia, P. J., Saltz, A., Kagan, A. R., et al.: Chemotherapeutic retroconversion of immature teratoma of the ovary, Obstet. Gynecol. **49**:346, 1977.
2. DiSaia, P. J., Morrow, C. P., and Townsend, D. E.: Synopsis of Gynecologic Oncology, New York, 1975, John Wiley & Sons, Inc., p. 174.

Reply to Dr. Fribourg

To the Editors:

Dr. Fribourg seems to offer the following criticisms: (1) He objects to our use of the term "conversion" because he considers it misleading. (2) He thinks that there is no comparison between our observation and that of Dr. DiSaia. (3) He states that our observation is "not too surprising" and concludes that it is not as significant as that of DiSaia and colleagues, and thus he questions its contribution to the general "fund of knowledge."

We are pleased to address these criticisms individually.

1. We removed a tumor, the dominant cell type of which was endodermal sinus. We treated with chemotherapy. On reexploration, we found no endodermal sinus tumor; instead, we found only dysgerminoma. Whether this observation was due to "conversion" or selective cell destruction is unclear, and, in a semantic sense, Dr. Fribourg might be correct. The process might even be selective cloning.

DiSaia and associates treated a malignant teratoma which had several elements (some of which might have been benign), and, at second look, found only benign