CORRESPONDENCE

The Treatment of Pleural Carcinosis With Malignant Pleural Effusion

by Dr. med. Michael Ried, Prof. Dr. med. Hans-Stefan Hofmann
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Treatment Option not Mentioned

We would like to draw attention to an additional therapeutic option in the form of intracavitary radionuclide therapy with colloidal β -emitters. This procedure consists of intrapleural injection of radionuclides, that achieve a targeted irradiation of pleural epithelial and carcinosis cells with an optimal depth of penetration (mostly <5 mm) and a consecutive decrease in effusions. The advantage: a painless and safe modality with high effectiveness and—in contrast to chemical pleurodesis—a local antineoplastic component.

Although no original article on this method has been published in recent years, it still represents an option and is characterized by good tolerability and effectiveness (1, 2). High rates of remission of >80% have been described with the β -emitters Y-90 or P-32 in colloidal compounds (3). The limitations that hampered the use—after initial popularity—were the efforts involved, the limited availability, and the inpatient stay in a nuclear medicine institution according to radiation protection regulations. After simple, non-radioactive treatment alternatives were introduced the radioisotope approach gradually decreased in clinical practice and eventually disappeared from oncologists' radar. Since the newer approaches (talcum, tetracycline, doxycycline) sometimes cause side effects or are unsuccessful in individual cases, knowledge about the radiopharmaceutical option, which may be complex in handling, but simple and well tolerated by patients, can prove very helpful.

It is therefore our great ambition to raise awareness of this procedure. The Y-90 colloid preparation can be administered in any institution for nuclear medicine, with the relevant permissions for handling, expertise, and an available therapeutic ward.

In summary, radionuclide therapy, as described above, is an effective therapeutic alternative with few adverse effects for refractory malignant pleural effusion that has been unfairly consigned to oblivion. It is important to draw attention to this palliative treatment option, which does have its merits in individual cases.

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In Reply:

We thank Ezziddin and Biersack for their extremely important advice on intracavitary radionuclide therapy with colloidal β -emitters, which has mostly been forgotten. A literature search on PubMed, using the terms “pleural effusion” and “radioisotopes” did not identify any current studies and publications for the past 10 years.

The likely cause is the complex clinical effort involved—the treatment can only be administered on an inpatient basis. The mean survival of patients treated with Y-90 was 288 days (1), which is consistent with the survival prognoses given in our article (2).

The reported remission rate of >80% (1) relates to the malignant pleural effusion, but not the underlying tumor disorder/pleural carcinosis. The success rate with regard to malignant pleural effusion is therefore the same as for talcum.

In our opinion, intracavitary radionuclide therapy is also a palliative therapeutic option for patients with a relatively good prognosis, because it means a great logistical effort for the treating physician and inpatient admission for the patient. DOI: 10.3238/arztebl.2013.0612b

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Conflict of interest statement

The authors of all contributions declare that no conflict of interest exists.