transmitted in the cell population without reinfection. This genome, in view of its stability, is also a suitable cellular marker.

Riassunto. Il virus del sarcoma di Rous (RSV), ceppo Praga, transforma le cellule di ratto mantenute in vitro: le cellule così transformate, dopo selezione clonale contengono il genoma virale, non risultante però da reinfezione. Tutte le cellule dei cloni transformati dal RSV hanno caratteristiche morfologiche di malignità. Inoltre dalle cellule transformate non si riottengono cellule con le caratteristiche morfologiche proprie delle cellule normali. Le cellule di ratto transformate dal RSV sono utili per lo studio dell'interazione virogenica.

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Experimental Model for the Induction of Tumoral Lymph Node Metastases in Hamsters

Besides metastases arising from a tumour previously developed in the same host, in experimental oncology there are also so-called metastases with the tumours occurring in various organs following the intravascular inoculation of tumoral triturates[1-8]. However, it must be pointed out that in this latter case the metastasizing process is only partially reproduced in the experiment: on the one hand, because the intravasculary injected cells that are retained by the capillaries of various parenchymas do not detach themselves spontaneously from a tumour of the respective animal, and on the other hand, the spontaneous emission of neoplastic cells from a tumour takes place on much more complex bases than the purely mechanical phenomena occurring when free cells (monerocytes[8]) are obtained by trituration.

From the immunological point of view, also, intravascular inoculation of homologous cancer cells represents a homograft, while in metastases the cell which penetrates into the vessels and migrates is a cell previously developed for many generations in the host's tumour: hence an autologous graft.

In other words, part of the resistance which a primary tumour homograft has to overcome before beginning to proliferate, no longer exists for the metastasizing tumour cells.

This represents an important difference as compared with homologous metastases obtained by i.v. inoculation of neoplastic cells.

The spontaneous detaching phenomena and migration of mother tumour cells thus cannot be excluded from the metastasizing experimental model, if the model is not to lose an essential compound of itself and consequently more or less of its similarity with the natural process which it tries to reproduce.

Therefore, we have endeavoured to perform experimental metastasizing models for various tumours and laboratory animals, where this process is entirely spontaneous, and at a frequency which would allow the experimental study of the pathogeny and therapy of metastases.

We have already described such models for Walker 256 and Guérin T8 tumours in rat[9-12].

In the present paper we present the results obtained with the hamster H 10 sarcoma[13].

Material and methods. We used 60 hamsters (*Mesocricetus aureus*), from our own Institute animal colony. The tumour is a spontaneous hamster sarcoma maintained by serial s.c. passages in the Oncological Institute since 1960. When grafted s.c. it yields no metastases but grows inside a capsule within 20–30 days, up to sizes sometimes equal to that of the host animal. In our attempts to obtain the metastases, we inoculated strictly intratesticular 0.1–0.3 ml H 10 broiate in saline. The inoculations were done bilaterally or unilaterally with a 16–18 gauge needle.

Results. Seven of the 60 injected hamsters died without being examined. Of the remaining 53 (17 bilaterally, 36 unilaterally injected), 52 (98%) presented testicular tumours up to the size of a dry nut, as well as individualized ganglionic paraaortic and pararenal metastases of varying sizes (bean, cherry or even a nut).

The unilaterally injected animals developed metastases in an average period of 30 days. The bilaterally inoculated animals developed symmetrically localized metastases in 15–20 days. In one animal metastases were also found in the lung and, in another, in the liver.

Due to the high percentage of metastases and their rather rapid growth rate, we consider this model of ganglionic tumoral metastases in hamsters as being useful in the experimental study on the pathogeny, prophylaxis or therapy of the tumoral metastasizing.

Résumé. Le travail décrit une technique expérimentale qui permet d'obtenir de grosses métastases ganglionnaires chez le hamster, après l'inoculation intratesticulaire de la tumeur H 10. Ce modèle peut être utilisé dans diverses études pathogéniques et thérapeutiques des métastases.

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