Oncothermia in Clinical Practice

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Background: Oncothermia clinical applications have been started in the 1990s in Germany. It is a German medical method based on a Hungarian invention which reached the approval in the European Union in 1998, and is still rapidly spreading all over the world. Oncothermia is nowadays present in 30+ countries, and 100,000+ treatments are provided per year. Together with the 'classical' EHY2000 locoregional device, the intraluminal EHY1000 and the multilocal EHY3000 series are popular on the market. The marketed products are completed with devices for in-vitro and in-vivo laboratory research, as well as with numerous accessories helping the oncothermia applications in practice. Oncotherm as company has 3 branches: in Germany, in Hungary and in the USA. The R&D work and the production is based on a wide range outsourcing network, including 300+ contracted partners. The production of the flagship device (EHY2000) has presently been started in Toyama, Japan (Tateyama Machines Co.).

Method: Oncothermia is theoretically a well-based [1], [2], treatment modality, fortified by 7 patents. Numerous publications (400) and running clinical trials (25) show its forceful present in the oncological field. The number of research projects in various universities of the international oncothermia community is 23. The number of the finished clinical studies (mainly retrospective, Phase I and Phase II) is over 60, originated from 5 countries and involving more than 3, 700 patients.

Discussion: Our aim is to show the clinical case-reports, the systemic studies and the solution of the medical challenges by oncothermia. Based on the actual research results, oncothermia goes further on the way of the nonartificial nanoheating technology (membrane rafts are selected, [3]) and using the very promising laboratory and preliminary clinical results Oncotherm points the tumor-vaccination by inducing immune effects with the method, [4].

Conclusion: Oncothermia is a feasible and reliable method in oncology, hoping it will step into the position of the fourth column of the oncological gold standards.

References:

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