

Romania, a new country in the European and international orbit of Hadrontherapy

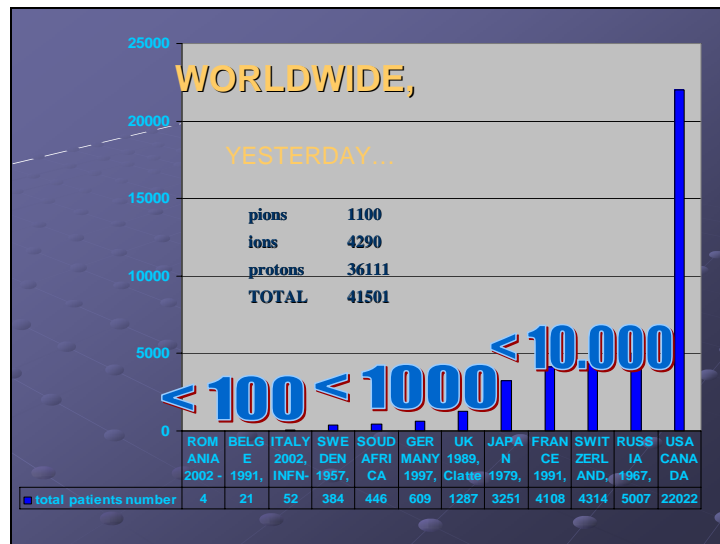
NICOLAE IOAN VERGA

The First International Workshop of
ROMANIAN SOCIETY OF HADRONTHERAPY
PREDEAL, ROMANIA
February 27th -March 1st, 2009

World Wide Proton Treatment Centers

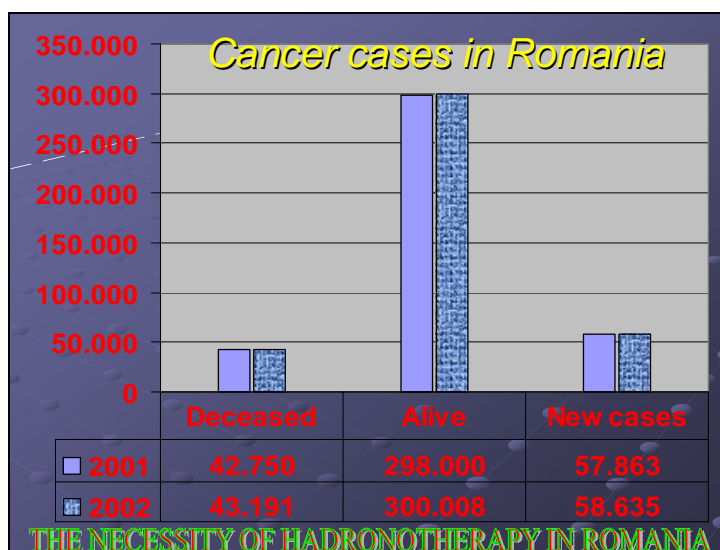
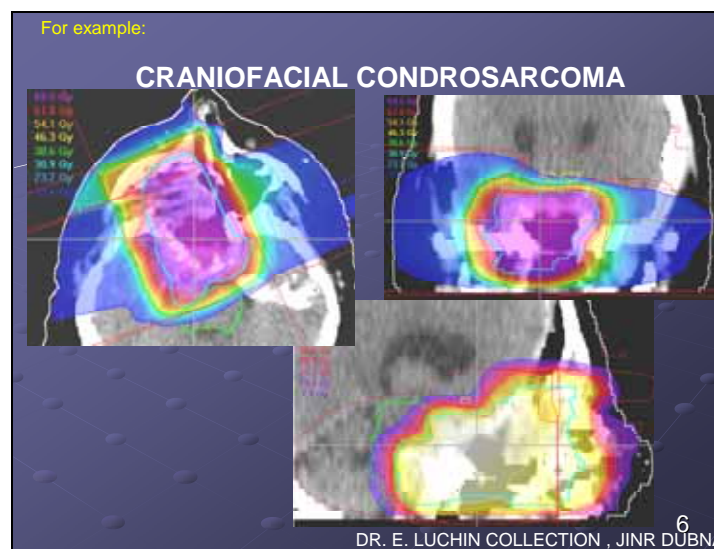


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Between 2002-2004, in Romania
four patients were treated with
hadronotherapy

1 women	osteoblastoma	Alive, integrated in social activities
3 men	Bone metastasis Prostate adenocarcinoma	Deceased now 2 years winningly compar. the estimation of the conventional radiotherapy
	Acoustic neurinoma	Alive, integrated in social activities
	Complex and giant metastasis Kidney adenocarcinoma	Deceased now 2 years winningly compar. the estimation of the conventional radiotherapy



ESTIMATED CURABLE CASES OF CANCER BY PROTONOTHERAPY IN ROMANIA 2001-2002

Year	2001	2002
Total	20407	19851

THE NECESSITY OF HADRONOTHERAPY IN ROMANIA

- For a cancer patient it is preferable to make many efficient therapeutically acts in a short time with a low human costs, therapy followed by the diagnostic for evaluation of present state and a prognostic evolution.
- This is a correct medical, scientifically and humanitarian point of view and the hadrontherapy is solution, now and after ten years when the number of cancer cases will be double.
- This high costs mean financial and human (biologically, psychically and social) price difficulty supportable.

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we have founded the
professional and scientifically
organization,

Romanian Society of Hadrontherapy
[RSH]. www.rsh.ro

We are medical doctors, physicists, dipl.
engineers,
radiobiology specialists

our target is
to develop Hadrontherapy
in our country.

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We started our work with signalling our
presence into mass media, to make
clinical audits in different specialties, to
make of feasibility studies for
hadrontherapy facilities.
In this year we hope to organize another
national consultative workshop in the
field of hadrontherapy.

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Another important direction is
to assure the economic bases
of our activities and our
economists work for planning
a good strategy for this.

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MEDICAL DEPARTMENT OF RSH

objectives

- to select the patients with indications for hadrontherapy,
- to contact the hadrontherapy centers and to suggest our Minister of Health and our National House of Health Insurance the best possibilities to treat the patients,
- to make a good follow-up,
- to evaluate the efficiency of their treatment.

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**In an UNITED EUROPE
the access at the hadronotherapy
must be done, first of all,
for medical reasons
and
not for profit criteria !**

Our research

- National
- International

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National

- Our national actual facilities are resumed to be a support for the international research collaborations.
- But, step by step, we organize the studies in some phenomena of fragmentation, the theoretically studies for simulation, for building the computational biology and theoretical medicine models, studies in neutrotherapy.

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Possible ways in hadronotherapy research and development

Medical accelerators specialized for
hadronotherapy

The association between
nanotechnology and hadronotherapy

“Digital” hadronotherapy with feed-
back

National interests R&D

National interests R&D

Dosimetry and standards

Extra irradiation post exposure at accelerated
hadrons

Radiobiological phenomena in hadronotherapy

Rapport among the different types of external
radiotherapy, the associations among their indications
and contraindications

PROBLEMS OF HADRONOTHERAPY

International

We began at Dubna :

- Protontherapy
- MedNuclotron Program .
- Radiobiology studies

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The collaboration needs and opportunities

- - economically problems of
hadrontherapy
- ○ feasibility studies
- ○ protocols of collaboration in the
treatment of our patients
 - the research collaborations or multi-
centers research
- - technological collaborations
- - theoretically and computing fields
- - medical, radiobiological research

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● The proposed instruments of collaboration :

- workshops,
- common participating in research programs,
- contracts of technology transfer, technology acquisitions, etc.
- learning programs and exchange experience for the specialists, etc.

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● The Romanian institutions interested are:

- ❖ Romanian Society of Hadrontherapy
- ❖ University of Medicine and Pharmacy
- ❖ National Institutes with interests in nuclear, electromagnetic, biology, research (ICDIE ICPE-CA, IFIN “HH”, IBC, etc.)
- ❖ Private Romanian companies

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