ISIORT Pooled Analysis 2014 update:

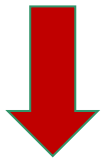
Clinical and Technical Characteristics of IORT in 8,164 patients

Krengli M, Sedlmayer F, Calvo F, Sperk E, Pisani C, Fastner G, Gonzalez C, Wenz F, Alessandro M, Mazzarotto R, Corvò R, Adamczyk S, Fillini C, Fusconi F, Osti M, Tomio L, Azinovic I, Ciabattoni A, Polkowski W, Di Grazia A, Gava A, Abdach L, Iotti C, Dubois JB, Catalano G, Cazzaniga F, Schumacher C, Weytjens R, Baldissera A, Ferrer C, Morillo V, Richetti F, Fusco V, Badinez L, Ivaldi G, Aguilar M, Ricardi U, Valentini V.

In order to promote a scientific and professional approach to IORT activity …

1998: the International Society of Intraoperative Radiation Therapy (ISIORT) was founded

2006: the European section of ISIORT (ISIORT-Europe) was activated

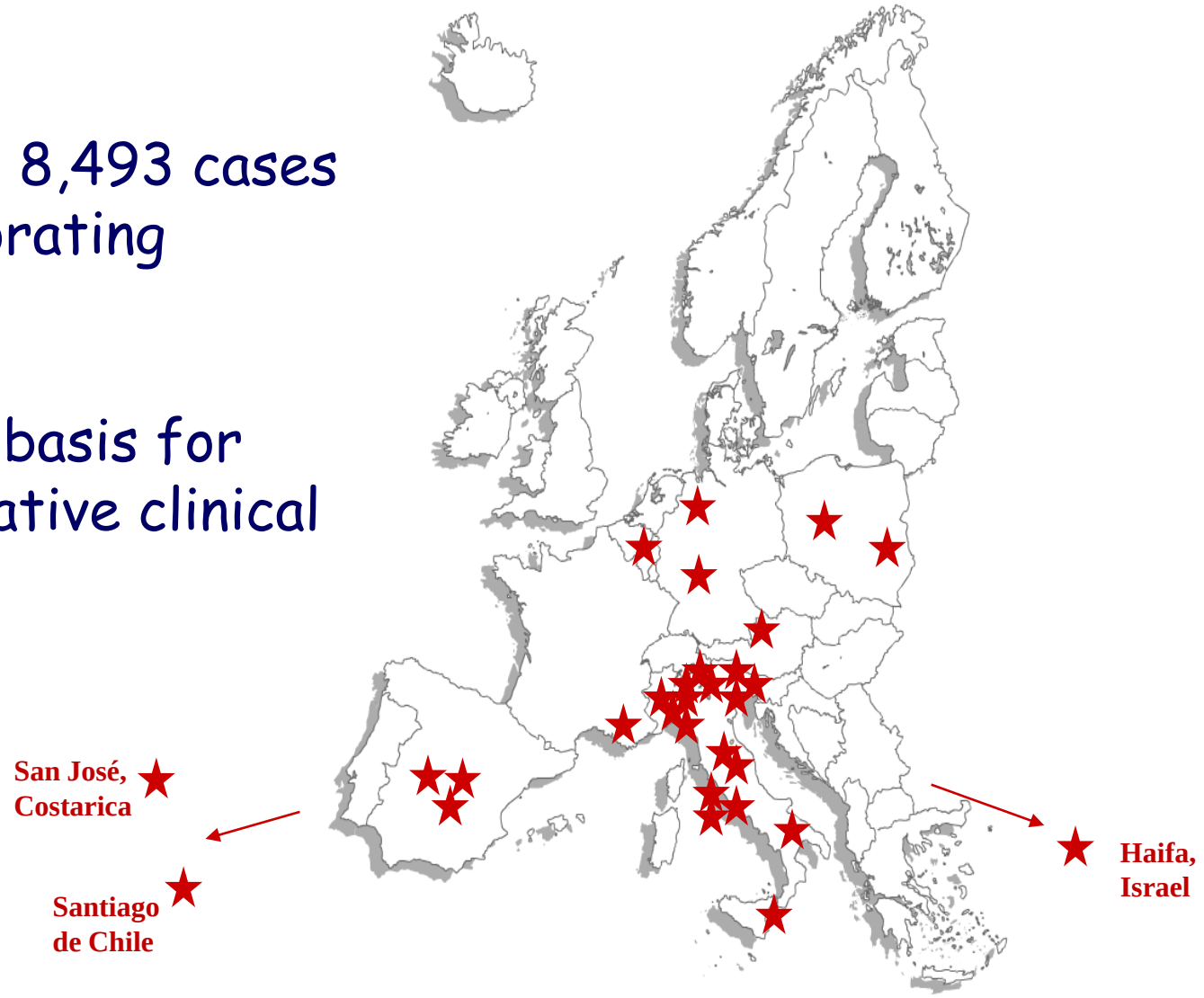


Among the activities of ISIORT-Europe, the **data-base Registry** has collected and recorded information of IORT activity from the affiliated centres.

ISIORT – EUROPE Registry

Collected about 8,493 cases from 34 collaborating centers.

This could be a basis for future collaborative clinical trials.



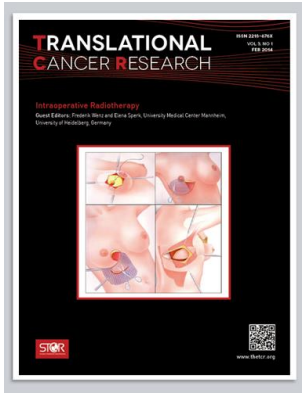
ISIORT – EUROPE Registry

Strahlenther Onkol 2013 · 189:729–737

Clinical and technical characteristics of intraoperative radiotherapy

Analysis of the ISIORT-Europe database

M. Krengli · F.A. Calvo · F. Sedlmayer · C.V. Sole · G. Fastner · M. Alessandro · S. Maluta · R. Corvò · E. Sperk · M. Litoborski · C. Pisani · C. Fillini · F. Fusconi · M.F. Osti · L. Tomio · H. Marsiglia · A. Ciabattoni · W. Polkowski · A. Di Grazia · A. Gava · A. Kuten · C. Iotti · C. Gonzalez · M. Sallabanda · J.-B. Dubois · G. Catalano · V. Valentini



Transl Cancer Res 2014;3(1):48-58

ISIORT pooled analysis 2013 update: clinical and technical characteristics of intraoperative radiotherapy

Marco Krengli[1], Felix Sedlmayer[2], Felipe A. Calvo[3], Elena Sperk[4], Carla Pisani[1], Claudio V. Sole[3], Gerd Fastner[2], Carmen Gonzalez[3], Frederik Wenz[4]

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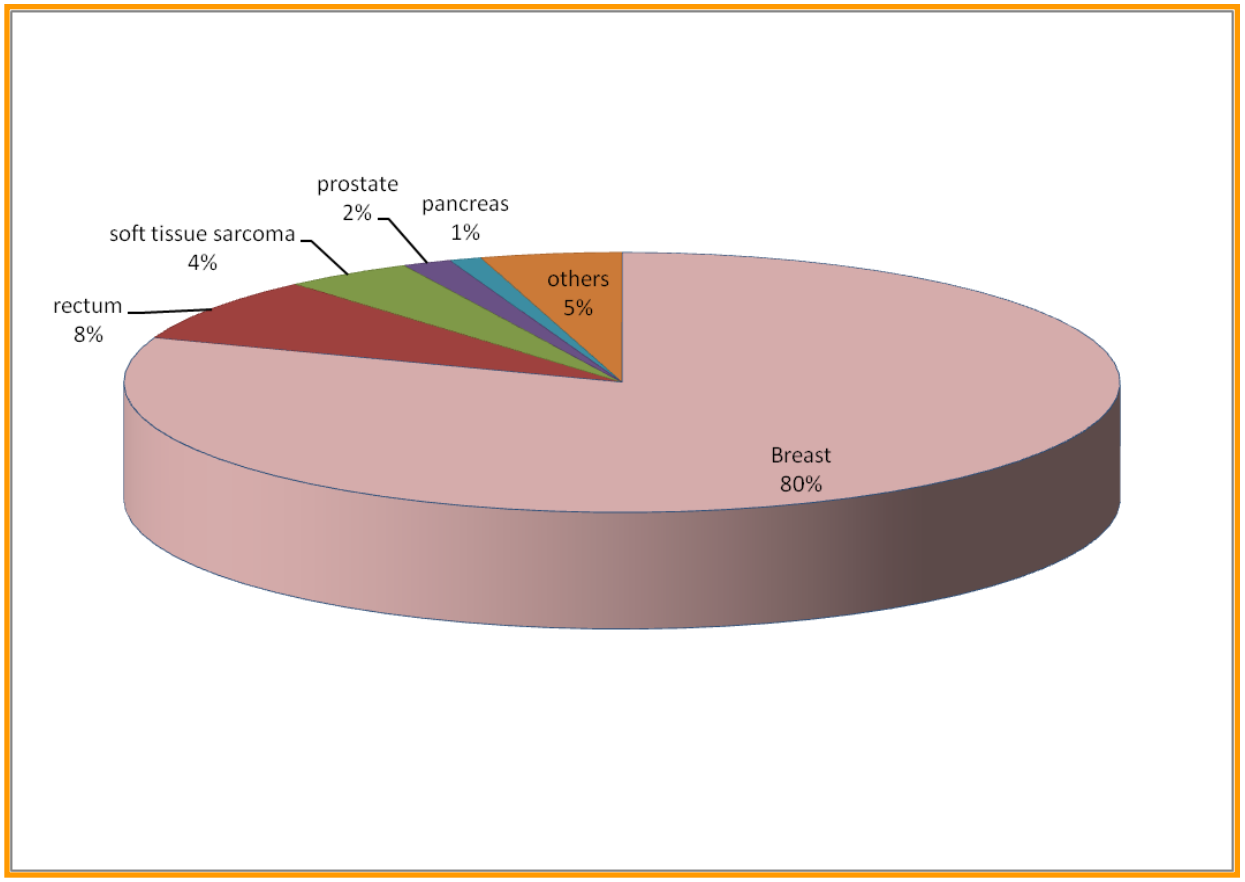
ISIORT
INTERNATIONAL SOCIETY of
INTRAOPERATIVE RADIATION THERAPY

The centres …

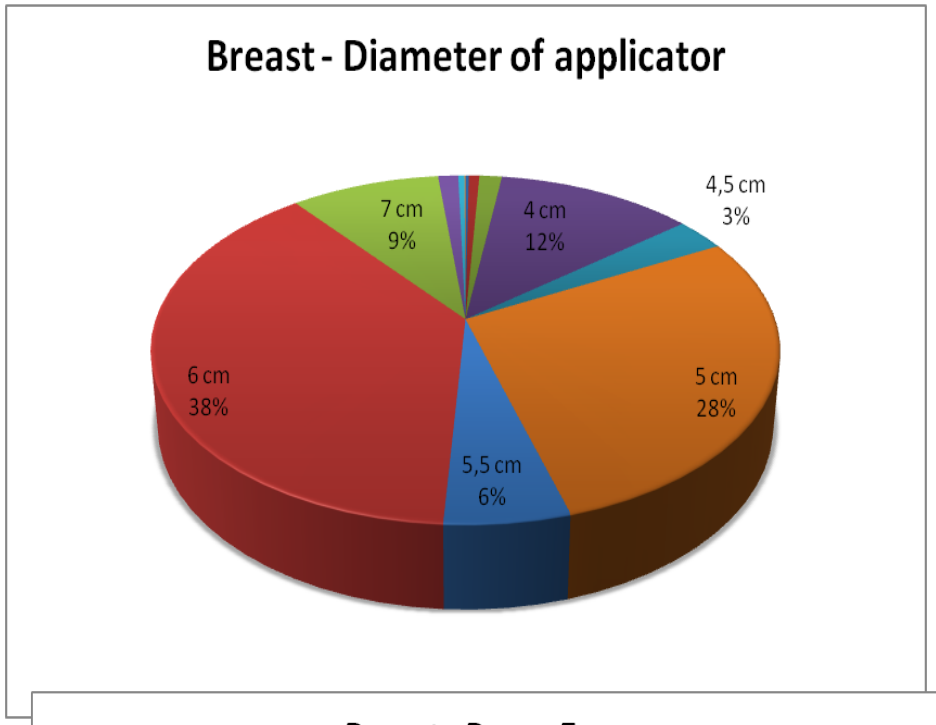
An overview



What are "others"?

Tumor sites	#
Esophagus	53
Stomach	65
Brain	34
Cervix-vagina	29
Head and neck	28
Uterine body	17
Ovary	16
Bowel	12
Lymphnodes	9
Kidney	8
Abdominal	8
Biliary tract	8
Lung - lung apex	6
Sacrum	6
Adrenal glands	6
Bladder	5
Spine	2
Testis	2
Anus	1
Chordoma	1
Colangiocarcinoma	1
Liver	1
Ear	1
Vulva	1

Breast cancer (n = 6,663 cases)

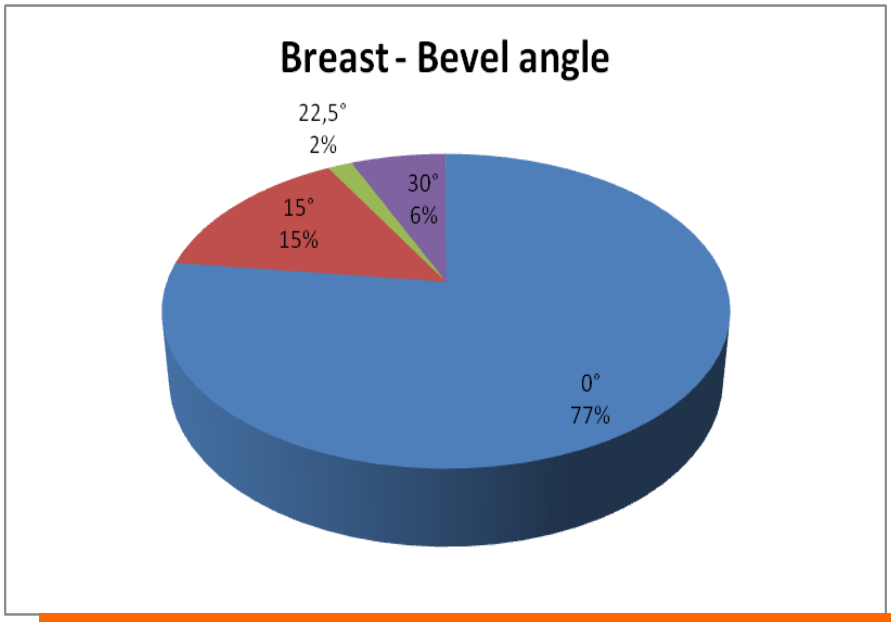


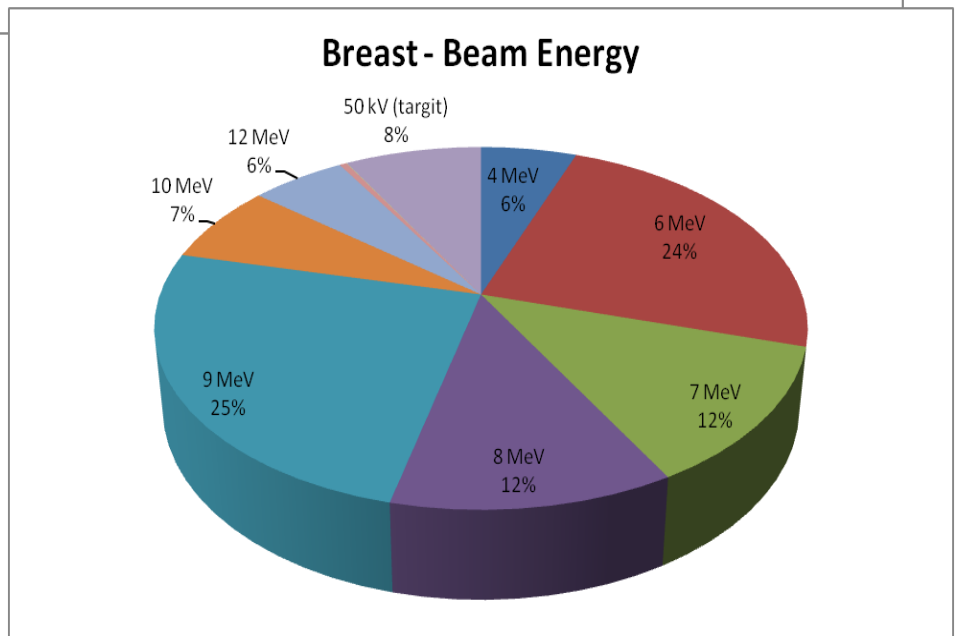
Median age: 61.1 yrs (16 – 90)

T1: 81.8% - T2: 16.1%

Ductal carcinoma:96.5%

Lobular carcinoma: 3.5%





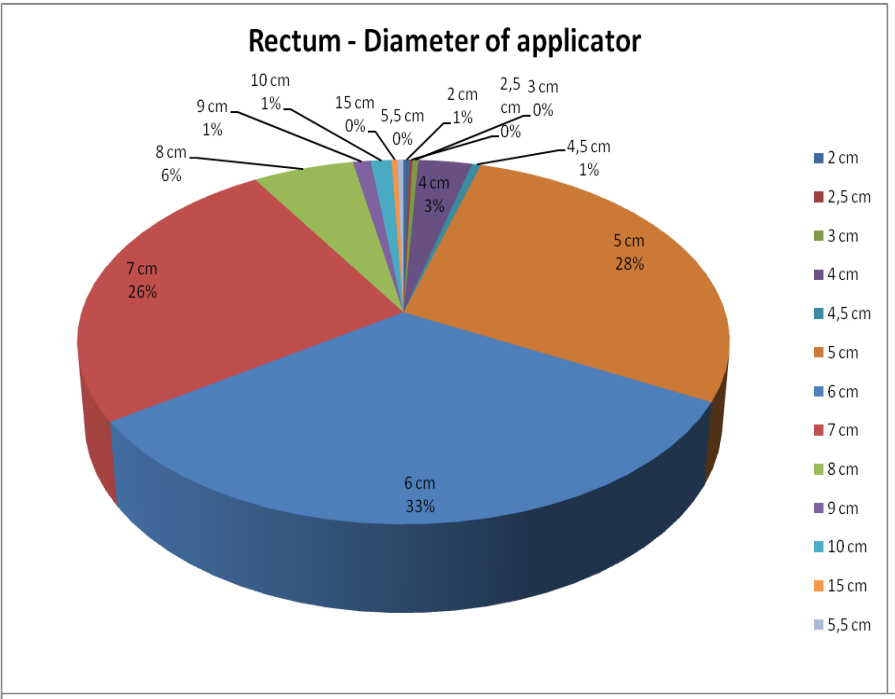
IORT as boost: 47.8% (8 - 12 Gy)

6.3% enrolled in protocols

Only IORT: 52.2% (16 - 21 Gy)

33% enrolled in protocols

Rectal cancer (n = 665 cases)

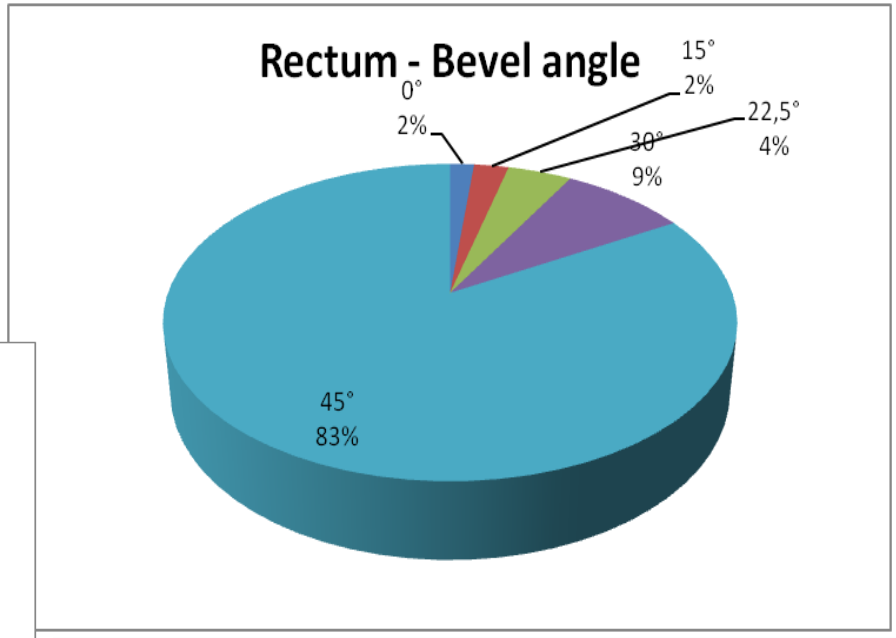


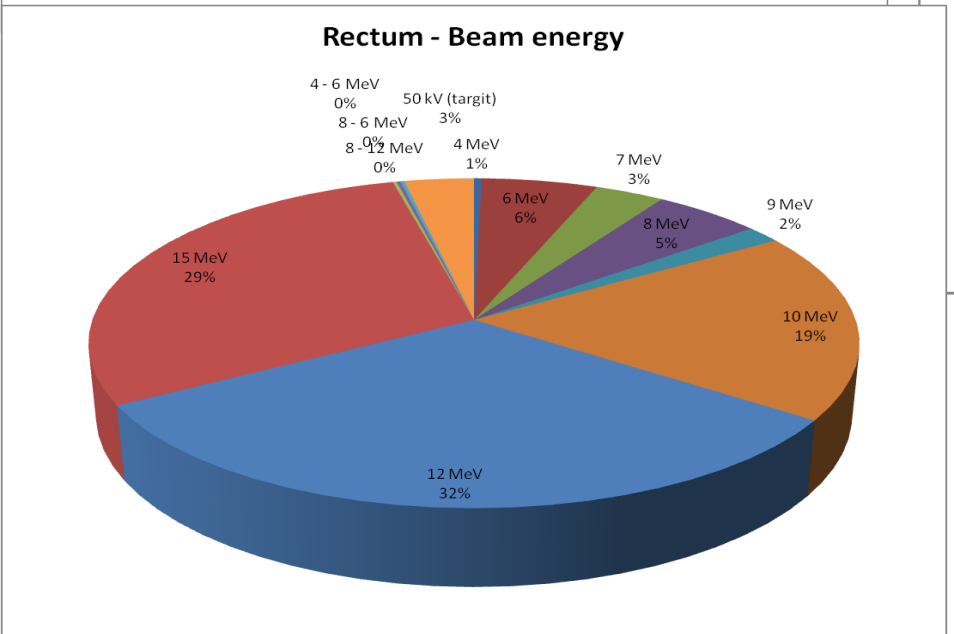
Median age: 62.9 yrs (26 – 94)

Primary: 86%

T2: 57.1%; T3: 16.4%; T4: 13.6%

Recurrent: 14%





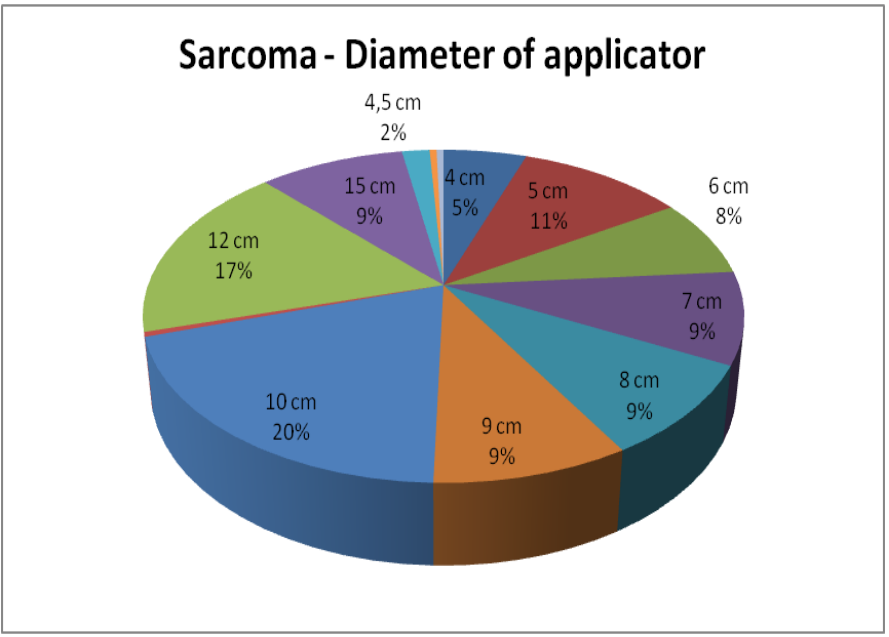
Doses:

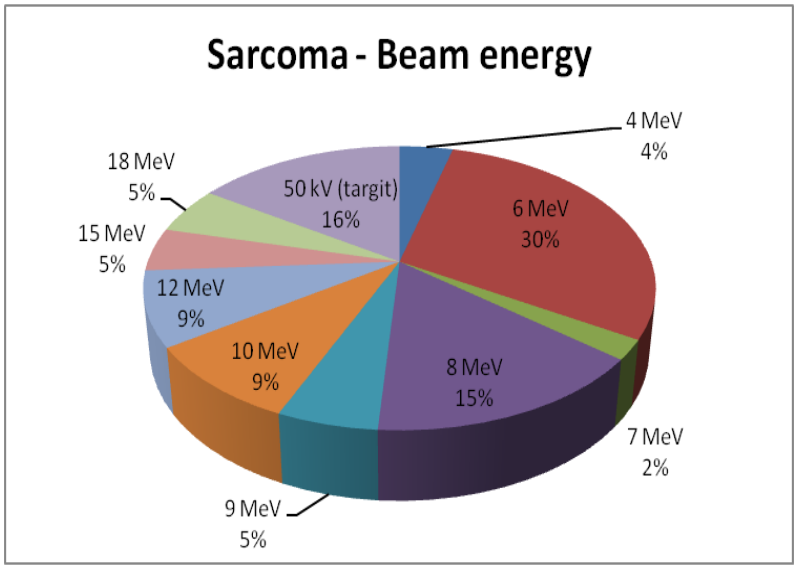
8 Gy (2%), 10 Gy (28%),

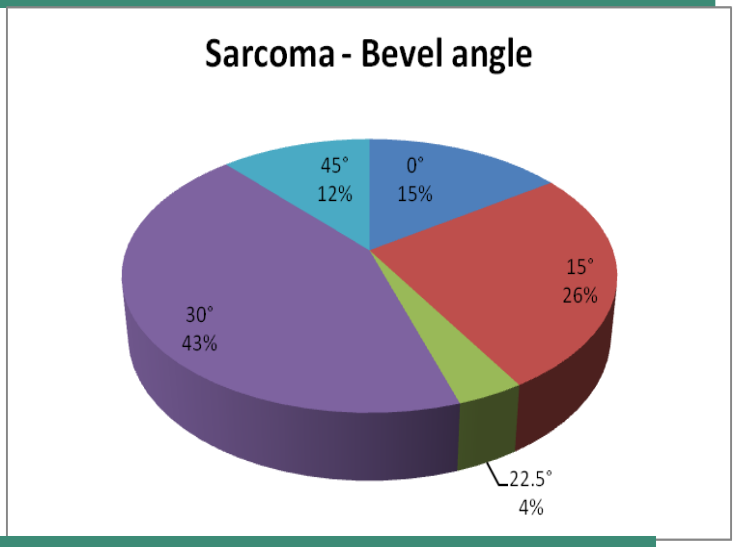
12.5 Gy (59%), 15 Gy (6%)

Soft tissue sarcomas (n = 345 cases)

Median age: 50 yrs (5 months – 88 yrs)
Primary: 57.8%
Recurrent: 42.2%
Histology:
liposarcoma: 50%
Ewing: 14%
leiomiosarcoma: 16%
chondrosarcoma: 5%
fibrohistiocitoma: 15%







Doses:
10 Gy (40%), 12.5 Gy (32%),
15 Gy (12%), 12 Gy (10%)

Conclusions

- The number of collaborating centres increased over time from 3 in 2007 to 21 in 2011 and to 34 in 2014.

- These data are a report on a large clinical experience of patients treated with IORT worldwide and gives an overview on practice oriented patients selection.

- Further data analysis could focus on single tumour types and highlight specific clinical and technical issues.

- The collected data could serve as a basis for designing clinical trials in an effort to define the contribution of IORT in tailored multimodality approach.