The impact of Radiotherapy on TransAminases in Soft tissue Sarcoma patients - RADIOTAS.

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Primary Objective: To prospectively identify, in routine daily practice, the impact of radiotherapy to extremities, with regard to the incidence of (severe) ALT or AST elevations in STS patients (all grades, no systemic therapy). Secondary Objective...

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Musculoskeletal and connective tissue neoplasms
Study type	Observational invasive

Summary

ID

NL-OMON53707

Source
ToetsingOnline

Brief title
RADIOTAS

Condition

- Musculoskeletal and connective tissue neoplasms
- Soft tissue neoplasms malignant and unspecified

Synonym
sarcomas, Soft tissue sarcomas

Research involving
Human

Sponsors and support

Primary sponsor: Antoni van Leeuwenhoek Ziekenhuis
Source(s) of monetary or material Support: Persoonlijk onderzoeks budget van de

hoofdonderzoeker

Intervention

Keyword: Radiotherapy, Sarcoma, Soft tissue sarcomas, Transaminases

Outcome measures

Primary outcome

The incidence of ALT or AST elevations (all grade) in STS patients receiving RT

of the extremities.

Secondary outcome

The prevalence of DNA-damage in peripheral blood mononuclear cells

Study description

Background summary

Newly diagnosed non-metastatic Soft Tissue Sarcomas (STS) are primarily treated by surgery. STS surgery is often combined with preoperative radiotherapy (RT) to increase local control rates. In the PASART trials, pazopanib was added to the combined treatment of preoperative RT and surgery in STS patients. During these trials, unexpectedly, one-third of the patients developed alanine transaminase (ALT) or aspartate transaminase (AST) elevations. No clear explanation for this relatively high incidence of these elevations during the PASART trials has been found, thus far. While treatment with pazopanib monotherapy may cause CTCAE grade >=3 ALT or AST elevations, the reported incidence is substantially lower than found during the PASART trials. While the physiological source of serum ALT and AST is predominantly the liver, both enzymes can also be found trough out the body such as in the muscles, kidney and brain. Damage to any of these tissues may cause an elevation of serum ALT or AST. This suggests that a possible explanation for the observed ALT or AST elevations during the PASART trials may be due tissue damage as a result of RT. This may especially be true for STS of the extremities. STS of the extremities are relatively large and in close proximity to muscles. Irradiation of the muscles surrounding the STS may be an explanation for the observed ALT or AST elevations during the PASART trials. Therefore, the primary aim of this study is identify the impact of radiotherapy to extremities on the incidence of ALT or AST elevations in STS patients.

The M21SAD (SADDRIN-I) is currently accruing patients. Herein, radiotherapy to the extremities is combined with the ATM inhibitor AZD1390. In patients participating to M21SAD, the prevalence of DNA-damage in peripheral blood mononuclear cells is measured. Now, we have a unique opportunity, within this N22TAS trial proposal to, also, measure DNA-damage in peripheral blood mononuclear cells in patients only undergoing radiotherapy without the ATM inhibitor.

Study objective

Primary Objective:
To prospectively identify, in routine daily practice, the impact of radiotherapy to extremities, with regard to the incidence of (severe) ALT or AST elevations in STS patients (all grades, no systemic therapy).

Secondary Objective:
The prevalence of DNA-damage in peripheral blood mononuclear cells.

Study design

A prospective observational study investigating the incidence of ALT or AST elevations in STS patients receiving RT of the extremities.

Study burden and risks

The patient burden of participation is minimal. During the standard of care radiotherapy schedule, four additional blood samples will be collected. It is unlikely participants will experience any complications as a result of the vena puncture. Patients will not directly benefit form study participation, however the results of this study will contribute to the understanding of the biology during radiotherapy in STS patients

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

• Histologically confirmed soft tissue sarcoma for which the standard treatment includes RT (deep seated and/or >= 5 cm in largest tumor diameter and/ or an anticipated close resection margin and/or grade II/III according to the FNCLCC definition);
• The sarcoma mass need to be located in an extremity;
• Able and willing to undergo radiotherapy;
• Able and willing to comply with the drawing of blood samples;
• Age >= 18 years;
• Adequate organ function at start of radiotherapy as defined in Table 4;
• Signed written informed consent prior to any study specific procedures or sampling;

Exclusion criteria

• Patients with recurrent sarcomas who underwent prior RT to the target lesion (if the primary sarcoma was managed by surgery only and no perioperative RT, patients are eligible);
• Ewing sarcoma and other PNET family tumors, rhabdomyosarcomas, bone sarcomas;
• Any psychological, familial, sociological or geographical condition potentially hampering compliance with the study protocol; those conditions should be discussed with the patient before registration in the trial;

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	13-10-2023
Enrollment:	10
Type:	Actual

Ethics review

Approved WMO

Date:	23-03-2023
Application type:	First submission
Review commission:	METC NedMec

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL83144.041.23