XXXIII Course on MUSCULOSKELETAL PATHOLOGY
“Hot topics in musculoskeletal tumor treatment”

May 23-26, 2022
Rizzoli Orthopaedic Institute - Bologna, Italy

Director of the Course
MARCO MANFRINI, M.D.
Orthopaedic Oncology
Department of Musculoskeletal Oncology, Rizzoli Orthopaedic Institute, Bologna, Italy

Invited Speakers
ANGELO P. DEI TOS, M.D.
Pathology
University of Padua School of Medicine, Padua, Italy

LEE JEYS, M.D.
Orthopaedic Oncology
Royal Orthopaedic Hospital NHS, Birmingham, UK

SILVIA CAMMELLI, M.D.
Radiotherapy
Imaging and Radiotherapy, S.Orsola University Hospital, Bologna, Italy

MARCO CIANCHETTI, M.D.
Proton Therapy
Department of Proton Therapy, Trento, Italy
Orthopedic Oncologic Clinic - Course Staff & Presenters
Davide Maria DONATI
Giuseppe BIANCHI
Laura CAMPANACCI
Tommaso FRISONI
Eric STAALS

Diagnostic & Interventional Radiology - Course Staff
Marco MICELI
Anna Maria CHIESA
Giancarlo FACCHINI
Giuliano PETA
Federico PONTI
Paolo SPINNATO
Cecilia TETTA

Anatomy and Pathological Histology - Course Staff
Marco GAMBAROTTI
Alberto RIGHI

Osteoncology - Course Staff
Ibrahim TONI
Marilena CESARI
Anna PAIOLI
Emanuela PALMERINI

Laboratory of Experimental Oncology
Katia SCOTLANDI, Maria Cristina MANARA, Caterina MANCARELLA

Pharmacogenomics and Pharmacogenetics
Massimo SERRA

Regenerative Therapies in Oncology
Enrico LUCARELLI

Spine Surgery
Alessandro GASBARRINI, Riccardo GHERMANDI

Plastic Surgery
Marco INNOCENTI

General Surgery
Fabio DAVOLI
GENERAL INFORMATION

AIM OF THE COURSE
The Course consists in a 4-day update on management of bone and soft tissue tumors with particular emphasis on clinico-pathologic and radiographic correlations including practical studies under microscope. It is addressed to orthopaedic surgeons, oncologists, pathologists, radiologists and basic researchers to improve their knowledge and competence in these pathologies by working in multidisciplinary teams.

The format includes interactive sessions for questions, case presentations and an early morning interactive session of multiple choice questions reviews the topics previously discussed. The last day participants are grouped in multidisciplinary teams to discuss a clinical case. The best teams are awarded a prize.

SITE
Istituto di Ricerca Codivilla-Putti - Via di Barbiano 1/10, Bologna, Italy
(can be easily reached by bus A from railstation and town center)

Start: Monday May 23 at 11.00
End: Thursday May 26 at 13.00

REGISTRATION FEE AND DEADLINES
Regular .......................................................... € 450,00 VAT included
SIAPEC Member – Regular Fee discount 20% .................. € 360,00 VAT included
Resident with letter from Chief Dept .......................... € 200,00 VAT included
AISOT Member ..................................................... € 200,00 VAT included
SIAPEC Member – Resident Fee discount 20% ............... € 160,00 VAT included

Fee reserved for UNIBO residents, PhD students and International Fellows of the IOR Orthopaedic and Traumatology Clinic III (oncology) ..... € 100,00 VAT included

The registration fee covers:
- admittance to the scientific session and final program
- refreshments during break and lunches

Course dinner: tuesday, 24 may 2022 ................................. € 50,00 VAT included

The registration and payment forms will be available online at https://form.jotform.com/220533098590356

Deadline for registration is MAY 15th, 2022

ORGANIZING SECRETARIAT
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OFFICIAL LANGUAGE
English
MONDAY, 23 May 2022

11.00  Registration and Welcome reception

12.00  Introduction to the course
       M. Manfrini

PSEUDO TUMORAL BONE LESIONS
Presenter: L. Campanacci
Panel: Pathologist, Radiologist and Guests

12.30  IS BIOPSY NECESSARY IN A RADIOLOGICALLY SUSPECTED BONE CYST?
       Introduction: presentation of a case (UBC vs ABC vs Fibrous dysplasia)
       L. Campanacci
       Discussion on differential radiological diagnosis
       G. Facchini
       Discussion on differential pathological diagnosis
       M. Gambarotti
       Discussion with the audience through interactive unknown cases:
       when perform a needle biopsy? When perform open surgery with
curettage in a cystic lesion
       Panel

13.30  WHEN SHOULD A NON-OSSIFYING FIBROMA (NOF) BE CURETTED OUT?
       Introduction: presentation of a fractured case
       L. Campanacci
       Radiographical sign of NOF (differential diagnosis)
       G. Facchini

13.45  HOW TO TREAT ANEURYSMAL BONE CYST IN SKELETALLY IMMATURE
       PATIENTS
       Introduction: presentation of a case treated with bone marrow
       concentration
       L. Campanacci
       The need for biopsy and the differential diagnosis in ABC
       M. Gambarotti
       Interventional radiology in ABC
       G. Facchini
       Discussion with the audience through interactive unknown cases:
       when to perform a needle biopsy? When to perform open surgery
       with curettage in a ABC: the good and the bad (from curopsy to
growth plate damage)
       Panel

14.30  Coffee break
BENIGN BONE LESIONS
Presenter: E. Staals
Panel: Radiologist, Pathologist, Oncologist, and Guest

15.00 HOW AGGRESSIVE SHOULD BE A CURETTAGE?
- Presentation of clinical cases
  E. Staals
- Key radiological issues in the diagnosis of benign bone lesions
  G. Facchini
- Key pathological issues in the diagnosis of benign bone lesions
  A. Righi
- The use of Denosumab in benign bone lesions
  E. Palmerini
- Benign bone lesions in the spine
  R. Ghermandi
- The use of osteosynthesis in bone curettage
  L. Jeys

16.30 THE HISTOLOGICAL TRANSITION FROM BENIGN TO MALIGNANT
CARTILAGE: IS BIOPSY ALWAYS NECESSARY?
- Clinical presentation of cartilage lesions
  E. Staals
- The radiological keys in cartilage tumors progression
  G. Facchini
- The histological progression
  A. Righi
- Current ROH strategy on Chondrosarcoma of limb and pelvis
  L. Jeys
- Discussion with the audience through interactive unknown cases:
  when to perform a needle biopsy? Curettage vs resection in low grade
  cartilage tumors
  Panel

18.00 End of the day

Histo-slides of the presented entities will be displayed on the microscopes all day
08.15 MALIGNANT PROGRESSION IN OSTEOID BASED BONE TUMORS?

- Presentation of a case of osteoid osteoma eventually resulted in high grade osteosarcoma
  M. Manfrini

- Key radiological issues in malignant osteo-differentiation
  M. Miceli, G. Peta

- The pathology perspective in the diagnosis of osteoid based bone tumors
  M. Gambarotti

- Chemotherapy in high grade variants
  M. Cesari

- The role of research: preclinical models for functional genomics
  M.C. Manara

- The role of research: news about chemo-resistance in osteosarcoma
  M. Serra

- Discussion with the audience through interactive unknown cases:
  How to treat recurrent high grade osteosarcoma?
  Panel

10.00 Coffee break

10.30 TREATMENT OF NOT RESPONSIVE EWING’S SARCOMA

- Presentation of a case of Ewing with soft tissue persistence after inductive chemotherapy
  M. Manfrini

- Radiological key issues in the evaluation of response to chemotherapy
  M. Miceli, G. Peta

- Pathological key issues in the evaluation of response to chemotherapy
  A. Righi

- The role of High-Dose ChemoTx in Ewing’s sarcoma
  A. Paioli

- The role of Radiotherapy in not responsive Ewing’s sarcoma
  S. Cammelli, M. Cianchetti

- Pelvic Ewing’s sarcoma: when the surgical treatment
  L. Jeys
12.00  IS PROGNOSIS OF METASTATIC EWING’S SARCOMA BETTER THAN METASTATIC OSTEOSARCOMA?
What about the outcome of Ewing and Osteosarcoma metastatic cases?
M. Manfrini
New variants in small round cell tumors
P. Dei Tos
New drugs in the treatment of Ewing sarcoma family
E. Palmerini
What’s new about circulating markers in Ewing’s sarcoma
C. Mancarella
Surgical treatment of lung metastases
F. Davoli
Stereotactic radiotherapy application in lung metastasis
S. Cammelli

13.00  Lunch break

SOFT TISSUE TUMORS
Presenter: G. Bianchi
Panel: Pathologist, Radiologist, Oncologist, Researchers, Radiotherapists, Plastic Surgeon

14.00  WHAT PERCENTAGE OF LUNG METASTASIS IN SUPERFICIAL AND SMALL (less than 5 cm) SOFT TISSUE TUMOR?
Introduction
G. Bianchi
Imaging studies options in STS
P. Spinnato
Is there any histology difference among small superficial and large deep-seated tumor of same diagnosis?
P. Dei Tos
Why soft tissue sarcoma metastasizing to nodes seem to have a less favorable prognosis
P. Dei Tos

14.30  IS IT STILL NECESSARY TO RE-EXCISE ALL SUPERFICIAL INADEQUATE LESION?
Presentation of a case and Rizzoli Institute data on re-excision
G. Bianchi
Radiotherapy in superficial tumor and whoops lesions
S. Cammelli
Birmingham experience in re excision in whoops lesions
L. Jeys
15.00 **IS THE COMBINATION RADIOTHERAPY, CHEMOTHERAPY AND SURGICAL EXCISION TO BE CONSIDERED THE GOLD STANDARD FOR HIGH GRADE STS?**

Presentation of the Rizzoli Institute data on high grade STS in pediatric patients
G. Bianchi

The use of tailored chemotherapy protocols in STS
T. Ibrahim

15.30 **Coffee break**

16.00 **WHEN IS THE CORRECT TIME FOR RADIOTHERAPY IN STS?**

Introduction
G. Bianchi

Preoperative or postopradiotherapy (in conjunction with chemotherapy)
S. Cammelli

Proton radiotherapy pro’s and con’s
M. Cianchetti

Are wound related problem interfering with chemotherapy?
M. Cesari

Does preoperative radiotherapy change surgical perspective in STS? (wound problems vs preservation of vital structures)
L. Jeys

What is the role of the plastic surgery?
M. Innocenti

18.00 **End of the day**

_Histo-slides of the presented entities will be displayed on the microscopes all day_

20.00 **COURSE DINNER**
WEDNESDAY, 25 May 2022

SECONDARY BONE LESIONS
Presenter: D.M. Donati
Panel: Pathologist, Radiologist, Oncologist, Researchers, Radiotherapists, Spine Surgeon, Guest

08.30 PERSPECTIVE OF CURE OF METASTATIC CARCINOMA IN 2022
Epidemiology update regarding metastatic carcinoma
D.M. Donati
Difficult diagnosis of metastatic carcinoma. Is needle biopsy always diagnostic?
P. Dei Tos
The bone niche in metastatic carcinoma
E. Lucarelli
Targeting cancer and microenvironment in solid tumor
T. Ibrahim

10.00 Coffee break

10.30 TREATMENT OF BONE METASTATIC CANCERS
The Rizzoli surgical experience
D.M. Donati
Radiotherapy strategy in metastatic carcinomas
S. Cammelli
Overview of interventional radiology in the treatment of bone metastatic lesions
G. Facchini
The use of electrochemo therapy
L. Campanacci
The role of surgery for spine metastases
R. Ghermandi
Pelvic and proximal femur surgery: when partial (curettage) or complete excision (resection)?
L. Jeys

12.00 DISCUSSION ON SELECTED CASES PRESENTED BY PARTICIPANTS
Staff and Guests

13.00 Lunch break
HOT TOPICS ON MUSCULOSKELETAL RECONSTRUCTIONS
Presenter: Tommaso Frisoni

14.00  Current role of bone grafts in oncological patients (adults and children)
       M. Manfrini

14.20  How to face limb discrepancy in pediatric surgery
       L. Campanacci

14.40  Is 3D printing custom device replacing allograft application in limb
       reconstruction?
       D.M. Donati

15.00  Computer assisted surgery: navigation vs 3D printing in pelvic resection
       L. Jeys

15.20  Discussion

16.00  Coffee break

16.30  DISCUSSION ON SELECTED CASES PRESENTED BY PARTICIPANTS
       Staff and Guests

18.30  End of the day

Histo-slides of the presented entities will be displayed on the microscopes all day

Slide of different presentations of the same session should filled in the same PPT to not lose time
with change of PPT files
All the slides should be inserted in the course logo PPT

THURSDAY, 26 May 2022

08.30  Display of 8-10 final unknown cases and teams line-up

10.00  Coffee break

10.15  Test continuing education (ECM)

10.30  Discussion of the final unknowns and Musculoskeletal Pathology
       Contest
       Staff and Guest
       Attendees will form multispecialistic teams, will be called to discuss one of the final
       unknown cases and will be scored by the guest professors and staff. Each team will have a
       maximum of 15 minutes for their case discussion

13.00  End of the course and award ceremony
PROMOTED BY

ASSOCIAZIONE MARIO CAMPANACCI

AUSPICIE OBTAINED

Società Italiana di Ortopedia e Traumatologia

Italian Sarcoma Group

Associazione Italiana Specializzandi in Ortopedia e Traumatologia

European Musculo-Skeletal Oncology Society

International Society of Limb Salvage

Società Italiana di Anatomia Patologica

www.musculoskeletalpathologycourse.it