



Multidisciplinary Tumor Board (MDT) SELNET



June 2022

CASES TO BE DISCUSSED

1. Instituto Nacional del Cáncer - Paraguay - *Dra. Eliza Ramírez*
2. Hospital Universitario Clínico San Carlos - España - *Gloria Marquina, MD, PhD*
3. INCA / Oncoclínicas - Brasil - *Bruna David*
4. Oncobolivia - Bolivia - *Ronald S. Limón T. MD*
5. Hospital de Clínicas/Universidad Nacional de Asunción - Paraguay - *Dr. Walter Marchi*
6. Alexander Fleming Institute - Argentina - *Dr. Tomás Soule*



SELNET

SELNET INTERNATIONAL TUMOR BOARD – MAY 2022.

GIST

NATIONAL INSTITUTE OF CANCER – PARAGUAY

DRA. ELIZA RAMIREZ

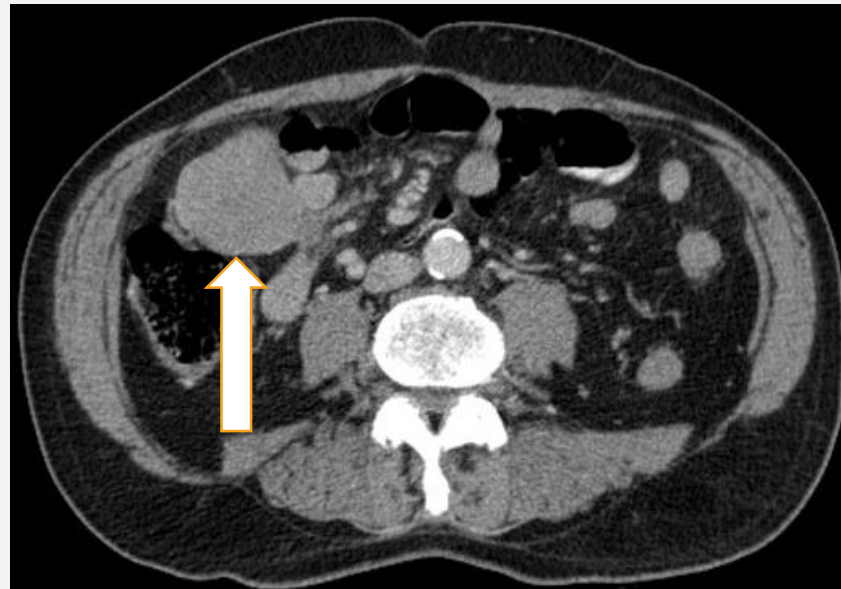
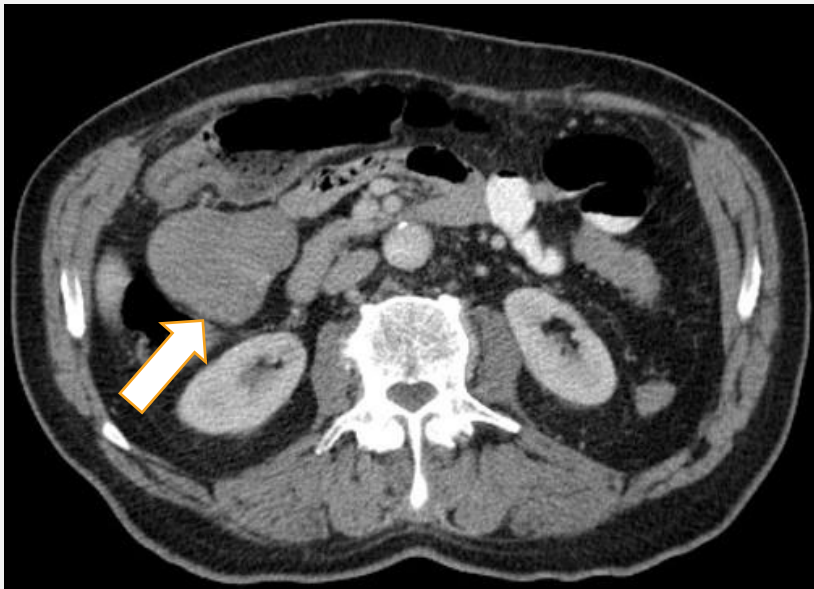


CLINICAL HISTORY

- 78yo male
- In 2016: abdominal surgery probable appendicitis
- **Pathology Report:** Low grade spindle cell tumor of the small intestine (GIST)
- Size: 2,5cm
- Mitosis: 3 mitosis/50 HPF
- No necrosis, hemorrhage
- Perforation of the intestinal wall

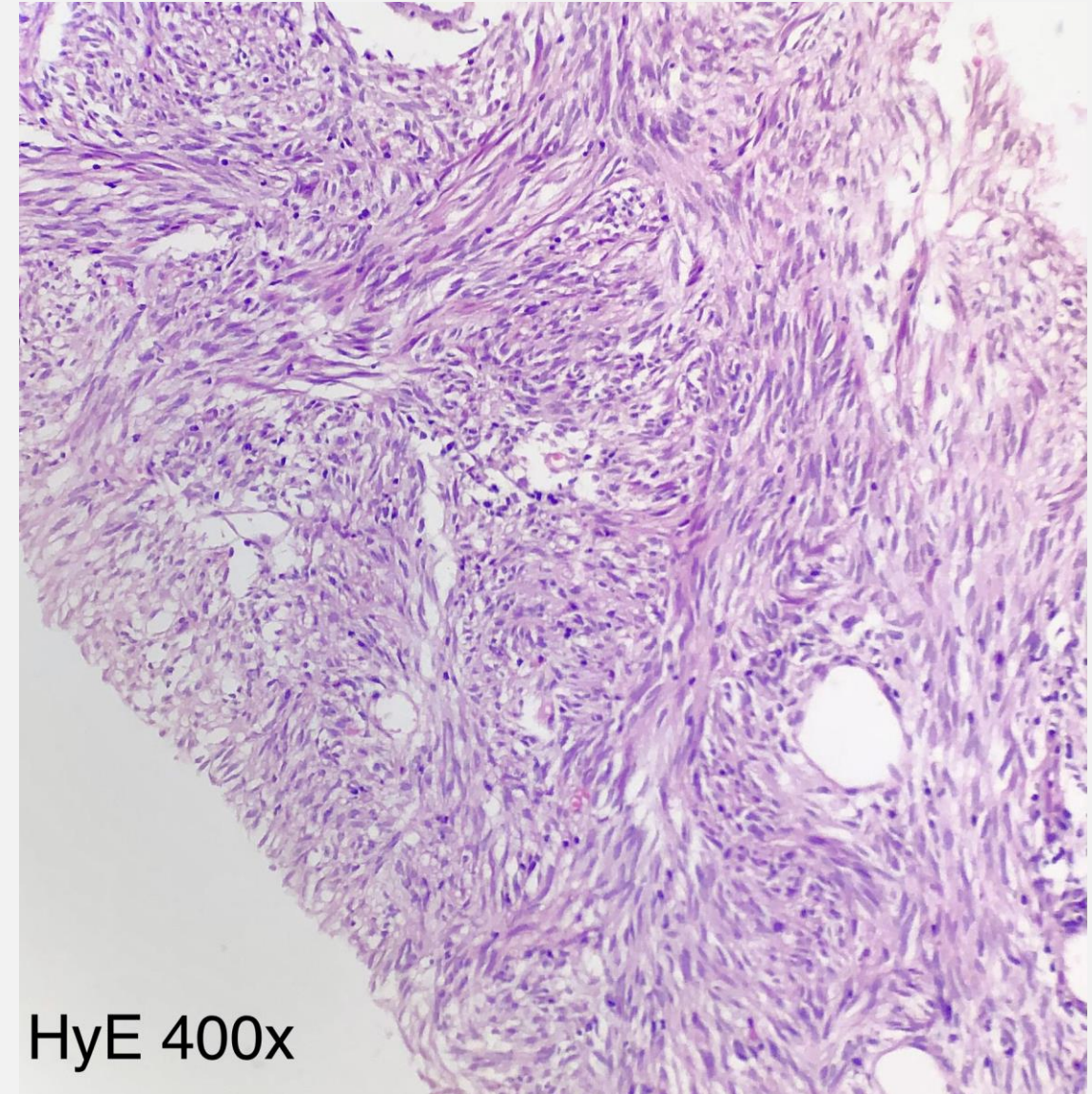
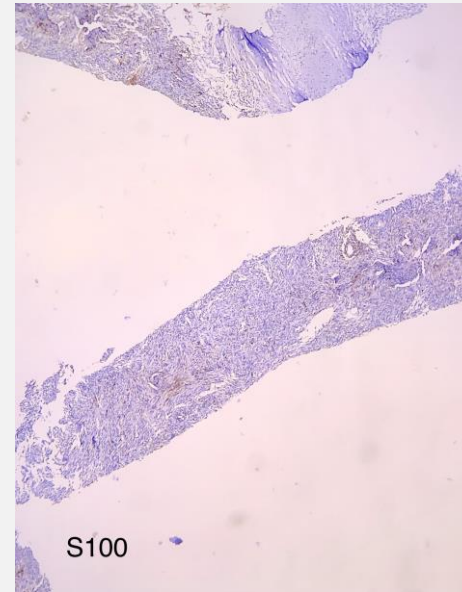
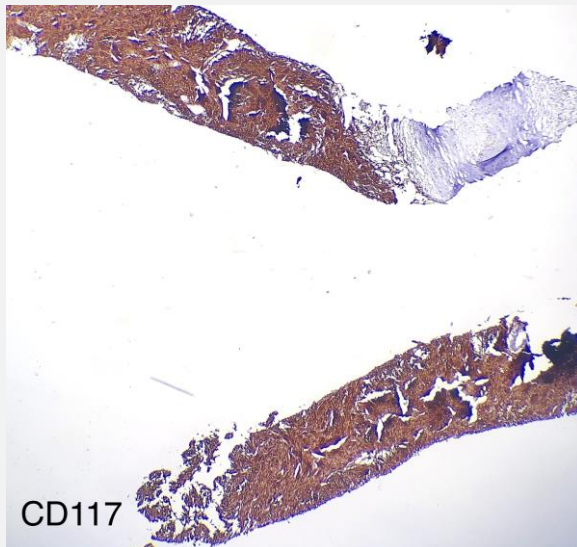
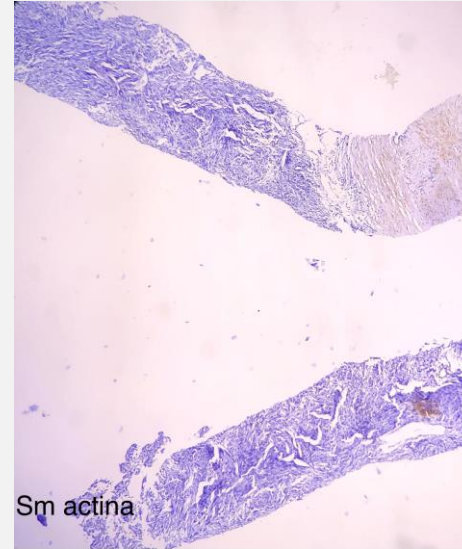
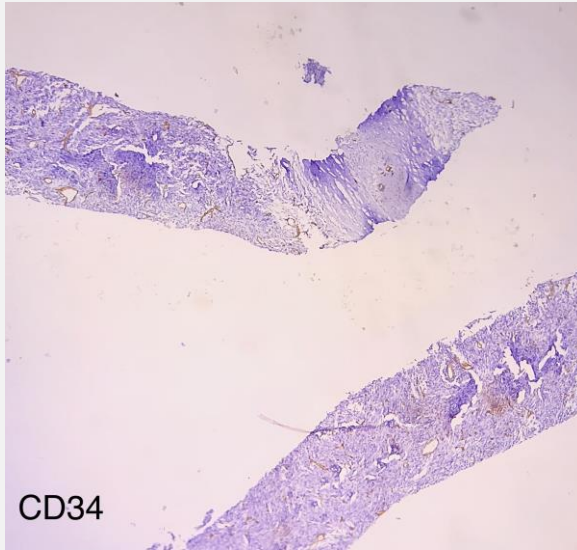


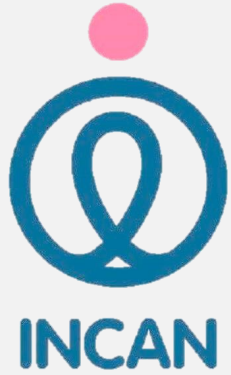
- March 2017 (at INCAN): extension studies were negative
- Systemic adjuvant treatment with imatinib for 5 months (patient abandoned treatment)
- December 2019 : CT scan shows solid nodules in the right flank



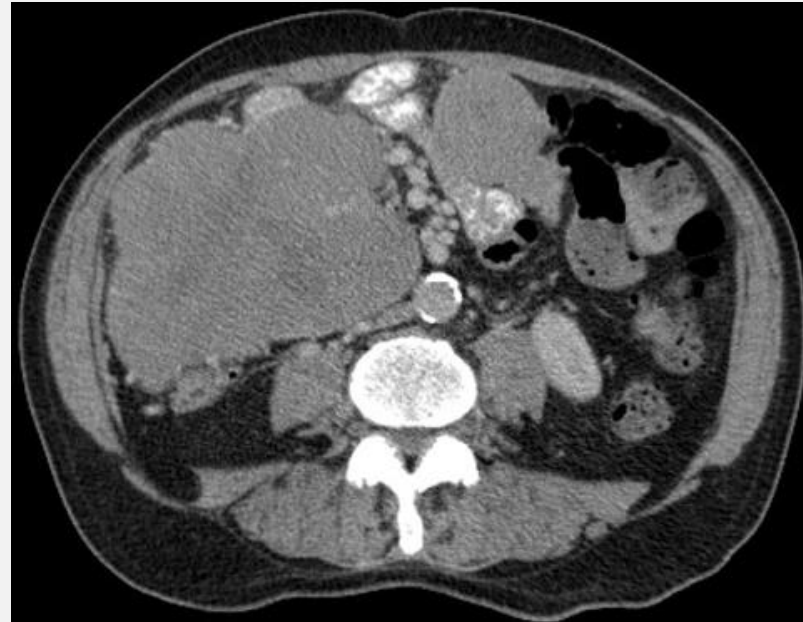
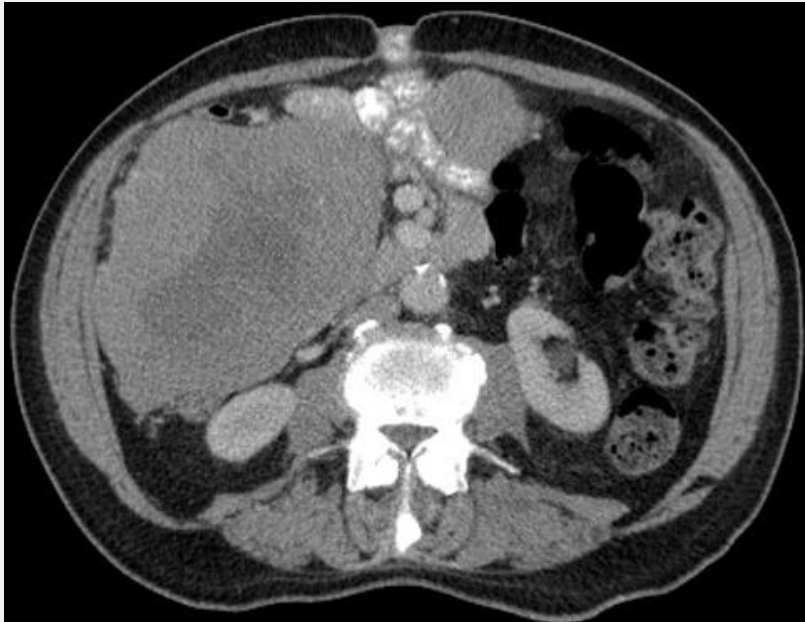
- Which were biopsied guided by ultrasound in June 2020

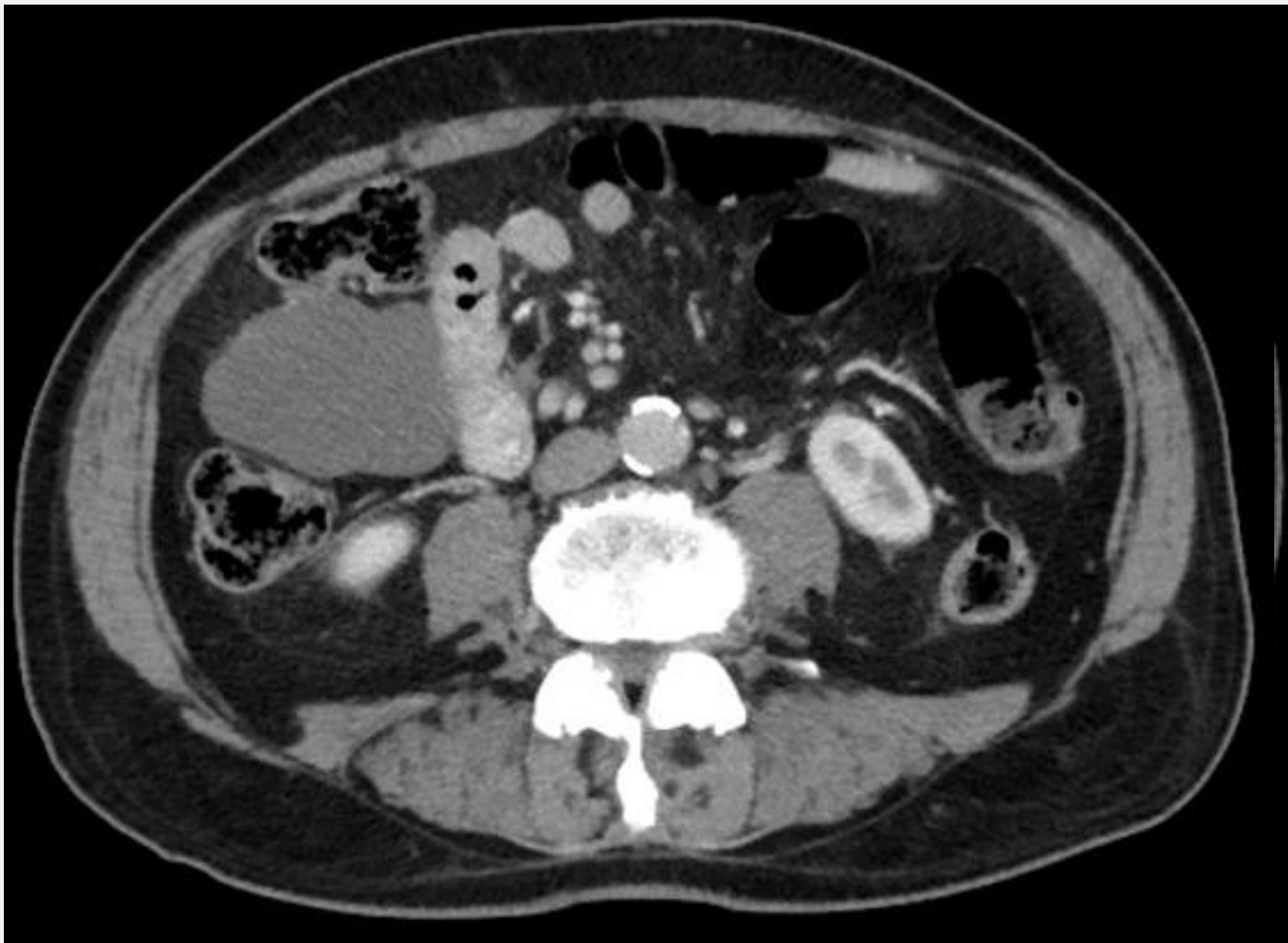
- **Pathology report june 25th 2020** Spindle cell tumor with mild atypia and 1 mitosis/50HPF
- IHC: CD117+ CD34- S100- actin-
- DX: GIST



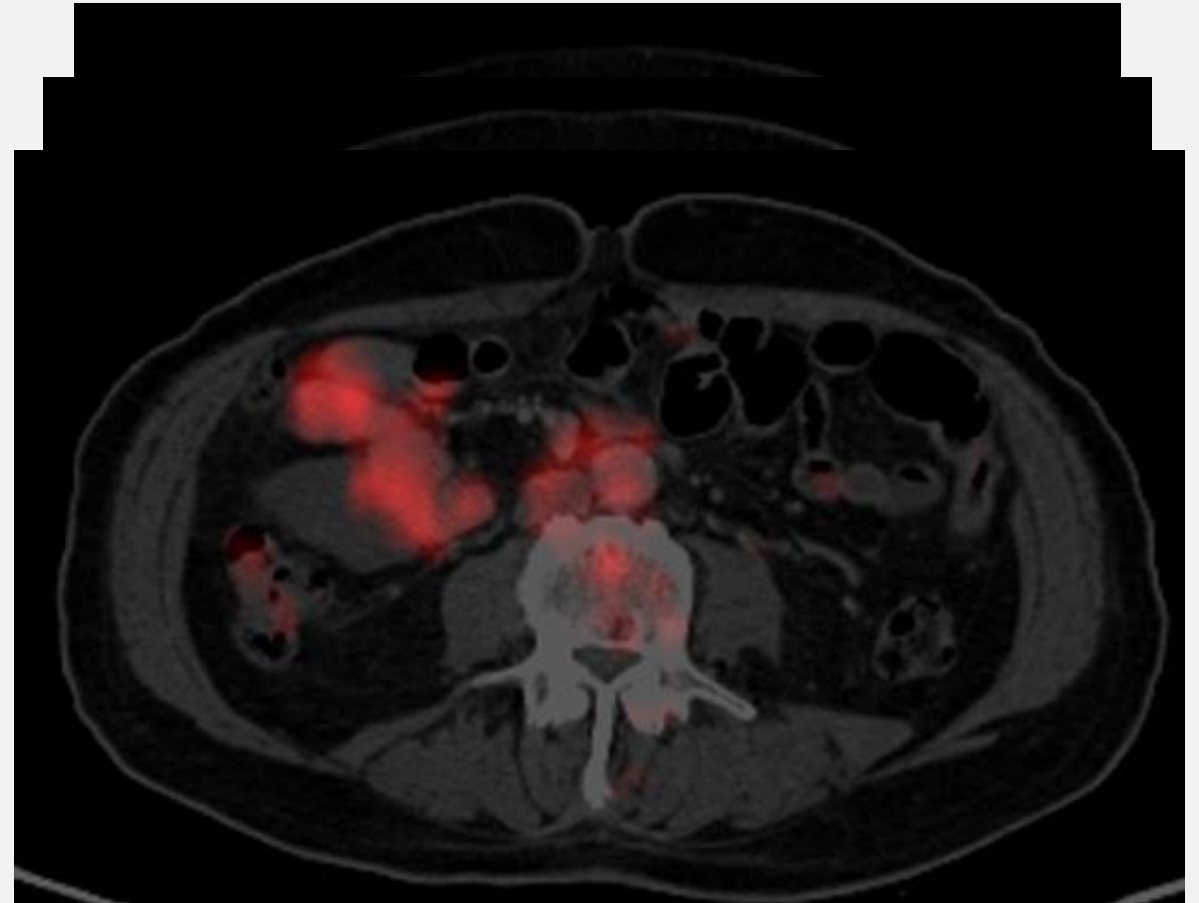
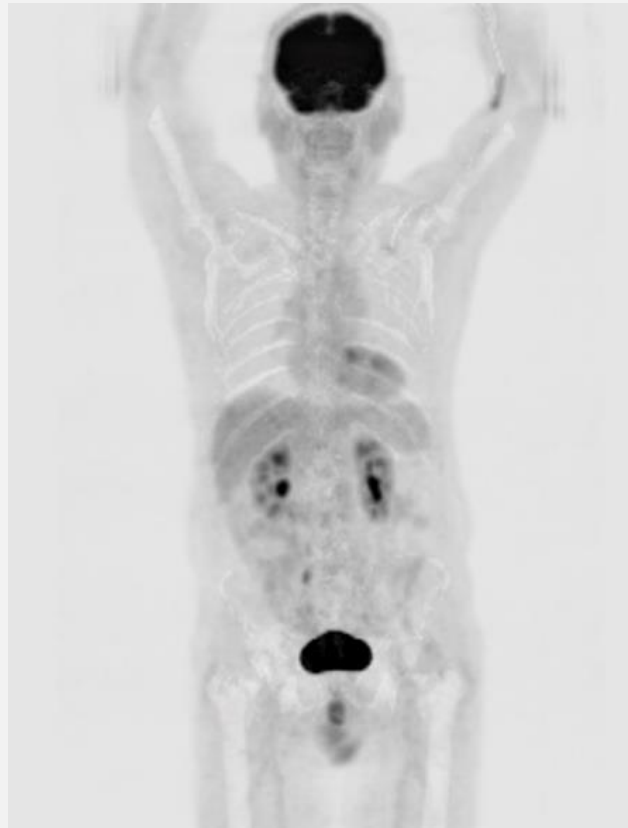


- September 2020: CT scans show the same 3 nodules in the peritoneum of the right flank
- Started Systemic treatment with Imatinib.





- March 2022: PET CT shows 3 non-solid nodules in the peritoneum, with liquid density (cysts?) which are non metabolic and have shown no variation since 2020



DISCUSSION

- Should the patient continue treatment with imatinib?
- Is surgical treatment of the peritoneal cystic residual lesions feasible?
- Are molecular studies necessary?



Palacio de López

24-year-old osteosarcoma patient

Gloria Marquina, MD, PhD

Hospital Universitario Clinico San Carlos

Madrid, Spain

Sarcoma diagnosis and treatment I

- Left knee conventional osteosarcoma - diagnosis in June 2021 in Mexico:
 - MRI
 - Biopsy
 - Thorax CT scan: multiple lung metastasis
- 12nd of August 2021 arrives in Spain.
- 13rd of August 2021:
 - Orthopaedics clinics
 - Medical oncology clinics
 - Pathology review: confirms diagnosis

Sarcoma diagnosis and treatment II

- Case discussed in our sarcoma MDT: chemotherapy
 - 23rd of August 2021 new MRI
 - 27th of August 2021: PET-CT Confirms bilateral lung metastasis +/- 5 (up to 11 mm)
- **1st line chemotherapy:** Doxorubicin 60 mg/m² + Cisplatin 100 mg/m²
 - C1 **1-3.9.2021**
 - C2 22-24.9.2021
- Urgent CT scan **27th of September 2021:** lingula pulmonary embolism.
Lung progression
- Inpatient from 27th of September to 8th of October 2021 due to G3 emesis and pulmonary embolism
- **8th of October 2021:** local progression

Osteosarcoma surgery

- 26th of October 2021: primary tumour surgery:
 - Extraarticular resection of distal femur with osteotomy 16 cm from articular interline
 - Total left knee arthroplasty with Megaprotesis GenuX MK (MBA)
 - Extensor apparatus reconstruction with anterior rectum and gracilis muscle remainder
 - Rotational flap of internal calve for muscle coverage of the prothesis
- 95% viable tumour

Osteosarcoma relapses and treatments I

- 2nd line: GEIS 67 “SELISARC” study
 - C1D1 30 November 2021
 - Local and lung progression on the 4th of January 2022
 - EOT 11st of January 2022
- 3rd line: Ifosfamide + Etoposide
 - C1 25-30 January 2022
 - C3 7-11 March 2022
- Dyspnoea → emergency department right pleural effusion.
 - Right pleurodesis.

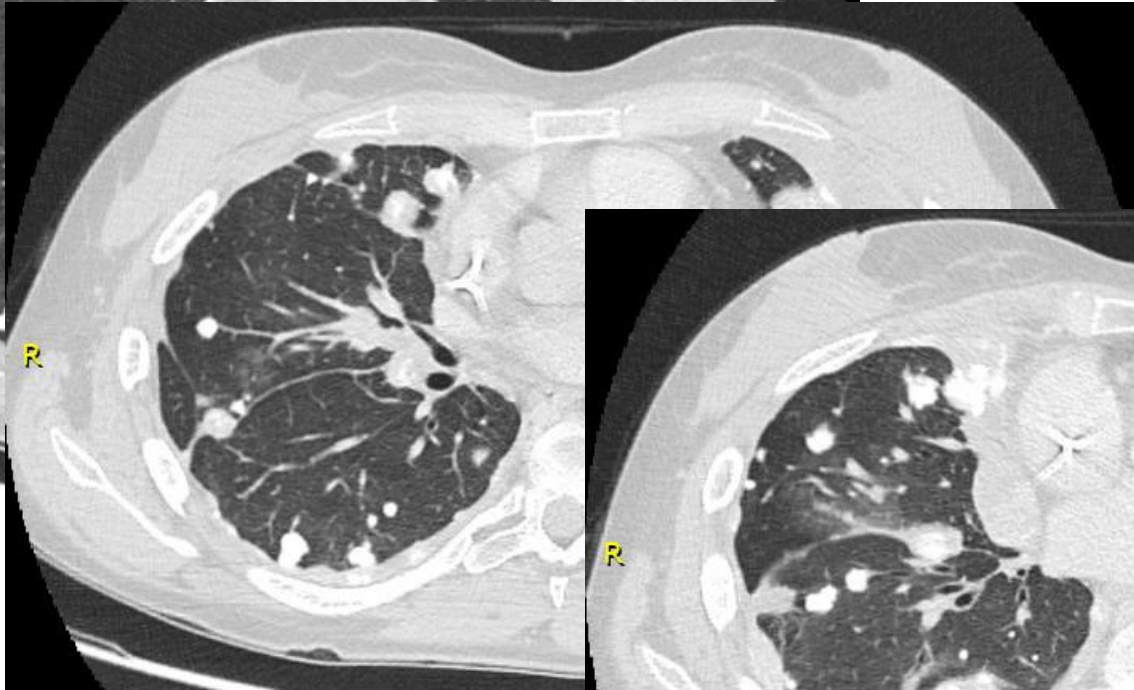
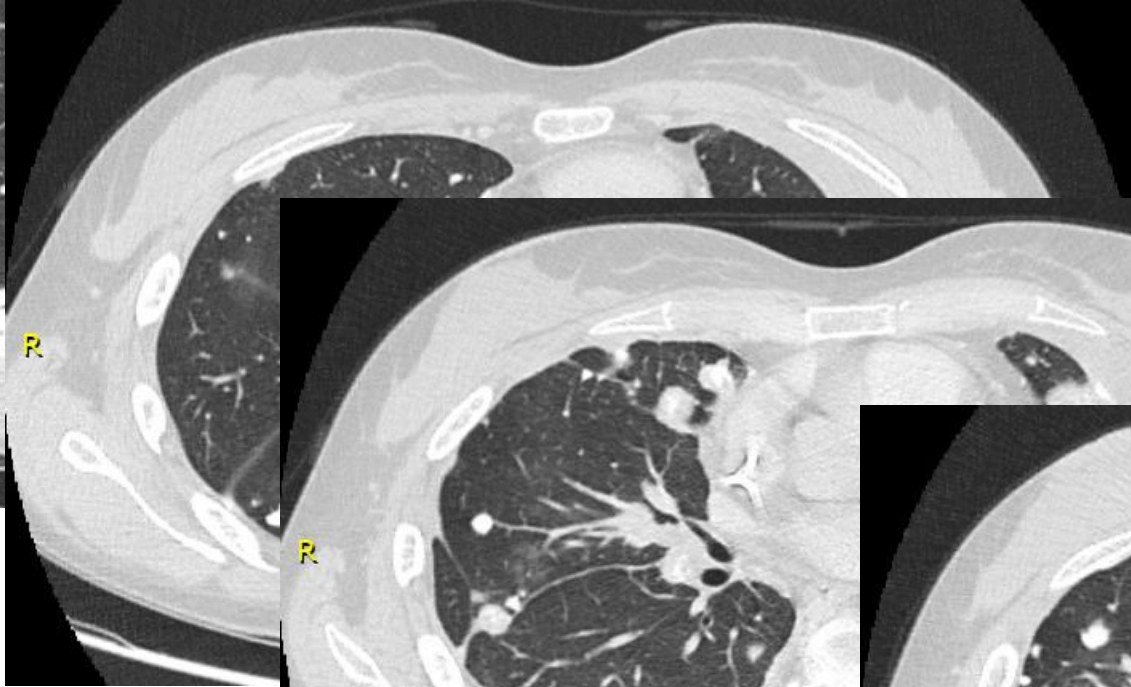
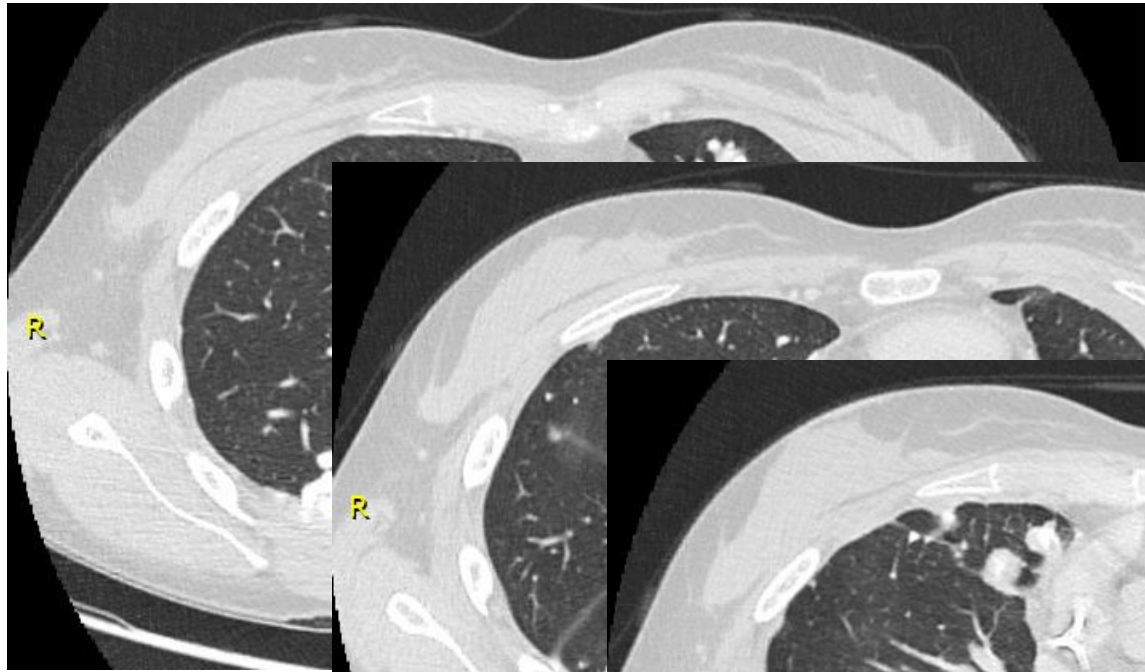
Osteosarcoma relapses and treatments II

- 4th line: Gemcitabine + Docetaxel
 - C1D1 1 April 2022
 - C3D8 27th May 2022

*Dyspnoea due to left pleural effusion on the 8th of April 2022.
Inpatient. No need of pleurodesis.

She is currently....

- ECOG 1 (local relapse pain)
- Lung progressive disease in June 2022.
- Any therapeutic approach?





Atardecer

SELNET MDT

June 23rd 2022

Bruna David

INCA / Oncoclínicas - Brazil

ALGD, male, 49 yo, PS0, hypertension.

- * May/2021: Mass in scrotum diagnosed after thrombosis in MID

- * July/2021: radical orchiectomy

- * LHP: Well-differentiated liposarcoma from the spermatic cord (12 x 8 cm), mitotic index 1 mitosis/mm³

July/2021 (after 2 weeks):

- New surgery: retroperitoneal lymphadenectomy + radical nephrectomy

- LHP: Well-differentiated liposarcoma (12x11, 11x7 5.5x3.5), grade 1 / mitotic index 1mit/mm³ / necrosis present.

July/21

MATERIAL:

(A) Cordão espermático direito, tumor, (B) Testículo direito, (C) Cordão espermático direito, margem cirúrgica

CONCLUSÃO MICROSCÓPICA:

(A) Cordão espermático direito -

Lipossarcoma bem diferenciado.

Medida da neoplasia: 12,0 x 8,0 cm.

Grau histológico (French Federation of Cancer Centers Sarcoma Group [FNCLCC]): Grau 1 (baixo grau).

Índice mitótico: 1 mitose / mm².

Necrose: não identificada.

Invasão angiolinfática: não identificada.

Infiltração perineural: não identificada.

Margens cirúrgicas: livres de neoplasia.

August/21

MATERIAL:

(A) Retroperitônio , tumoração, (B) Rim e ureter direitos, (C) Região inguinal direita, (D) Região pélvica , tumoração

CONCLUSÃO MICROSCÓPICA:

(A) Retroperitônio , tumoração -

Lipossarcoma bem diferenciado.

~~Medida da neoplasia: nódulos de~~ 12,0 x 11,0 cm, 11,0 x 7,0 cm, e 5,5 x 3,5 cm

Grau histológico (French Federation of Cancer Centers Sarcoma Group [FNCLCC]): Grau 1 (baixo grau).

Índice mitótico: 1 mitose / mm².

Necrose: presente

Pele com áreas de fibrose cicatricial, esteatonecrose e reação giganto-celular tipo corpo estranho.

(B) Rim e ureter direitos - Livres de neoplasia, exibindo congestão.

Lipossarcoma bem diferenciado infiltrando tecido adiposo peri-renal e peri-ureteral.

(C) Região inguinal direita - Lipossarcoma bem diferenciado.

(D) Tumorção pélvica - Lipossarcoma bem diferenciado.

Áreas de esteatonecrose e reação giganto-celular tipo corpo estranho.

Sep/2021:

-FDG PET: retroperitoneal disease: bilateral internal iliac chain, larger 48x33mm (SUV 3.3), right iliac fossa 19 x 16mm (SUV 2.5), between m. psoas major and quadratus lumborum 13x10mm (L4) (SUV 3.4).

Tumor thrombosis of the common iliac vein associated with hypermetabolism (SUV 3.2)

Pathology review: Well-differentiated liposarcoma

Dec/2021:

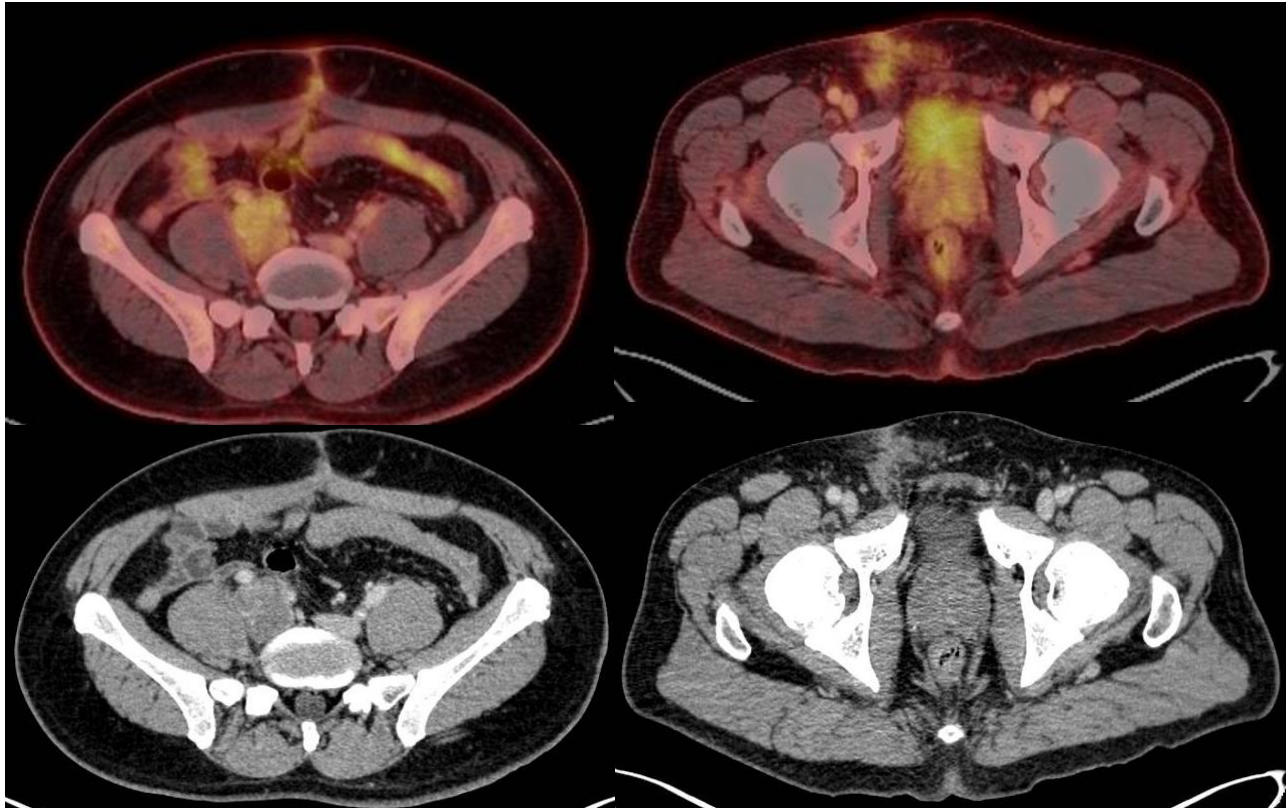
-Chest CT: no changes, tiny unspecific nodules

-MRI abdomen and pelvis: increase in pelvic lesions, greater along the iliac vessels on the right with superior extension in the vena cava (tumor thrombus?)

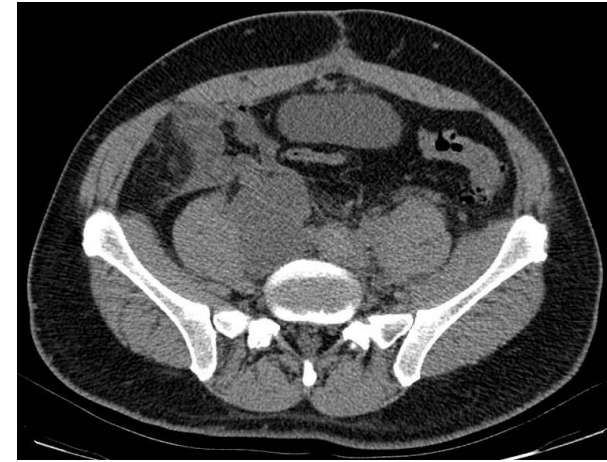
Attempted resection of a retroperitoneal mass - unresectable. New biopsy performed.

LHP: well-differentiated liposarcoma with myxoid areas.

Sep/2021



Dec/2021



Due to the progression disease, CT was initiated.

4 cycles of Adriamycin – PD

May/22:

Chest CT: no disease.

Abdomen MRI: PD

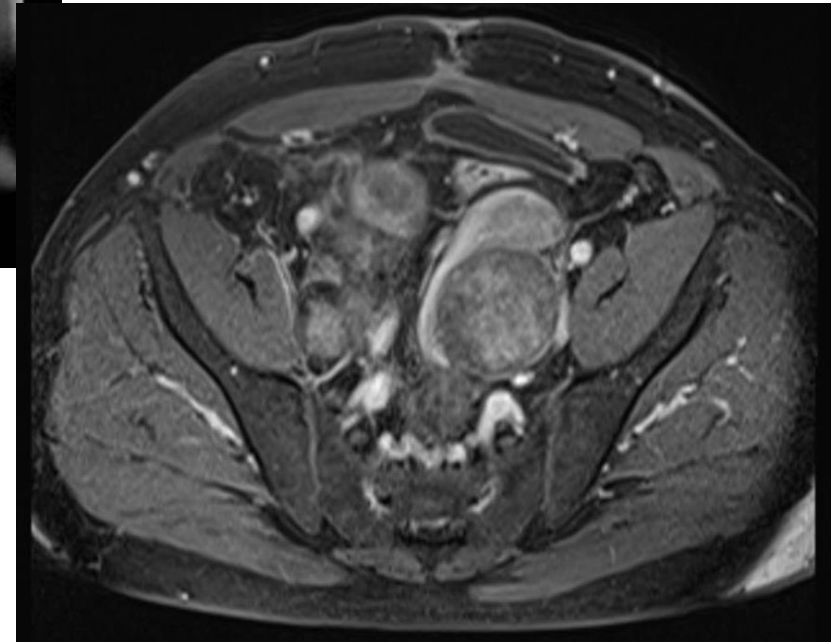
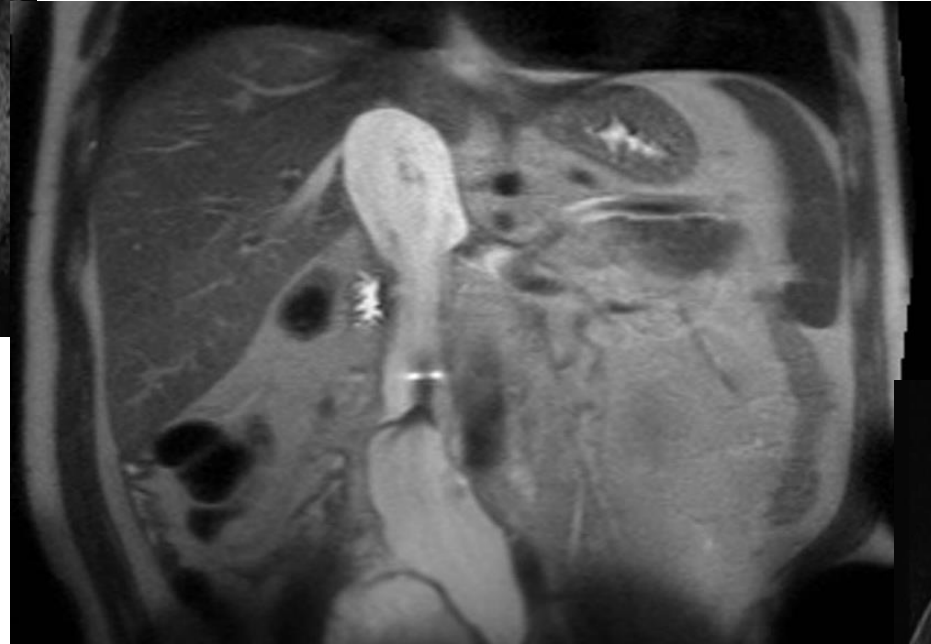
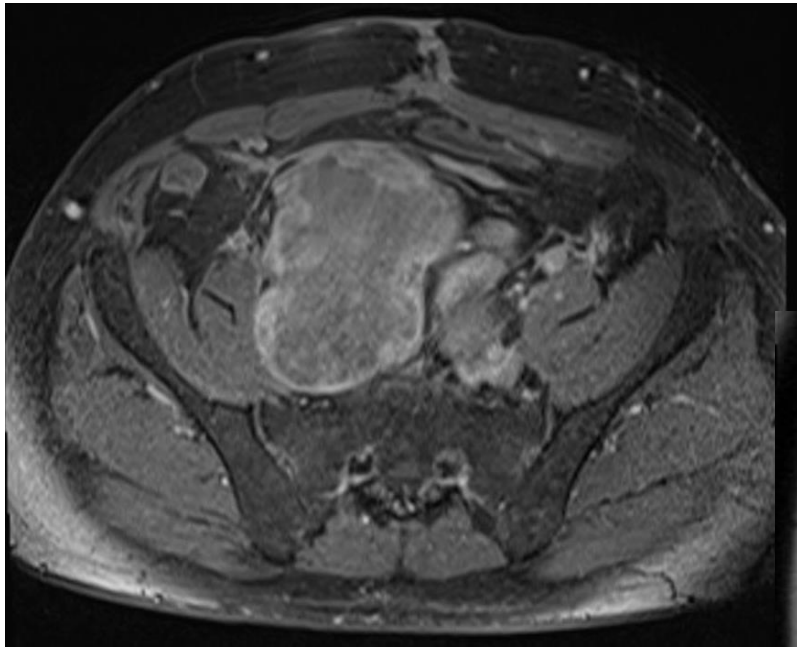
There was a marked increase in the dimensions of the elongated images, located inside the inferior vena cava, currently extending to the intrahepatic segment (extension approx. 19.0 cm - anterior: 5.7 cm), right in the common iliac vessels, on the right it extends for 7.6 cm (anterior: 4.4 cm), forming a lobulated component measuring 10.2 x 8, 5 cm on the axial axes (anterior: 5.5 x 3.6 cm), and on the left it extends to 5.6 cm (unchanged).

Other suspicious lobulated images in the left internal iliac chain, together measuring 7.7 x 6.3 x 5.2 cm (mean 4.0 x 3.2 cm), in the right iliac fossa, measuring 3.4 x 1.7 x 1.6 cm (mean 2.1 cm) and in retrocaval situation measuring 3.3 x 1.3 cm (new lesion).

Oval image between the psoas muscle and the right quadratus lumborum at the level of L4, measuring 1.5 cm, larger in relation to the previous examination (meaning 1.3 cm).

Excellent clinical condition.

May/2022



- Pathology review in course (Fletcher)

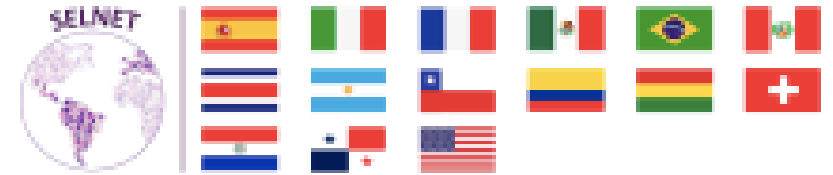
Questions:

1. Which systemic therapy as second line?
2. Is there any role for RT?



Catedral de Asunción

Oncology Department



Surgeon: Mario Gianella MD

Surgeon: Sergio Nogales MD

Surgeon: Marcelo Marquez MD

Medical Oncologist: Ronald S. Limón T. MD

Pathologist: Carolina Henestrosa MD

Radiologist: Angela Machado MD

Radiation Oncologist: Rosario Paniagua MD

Clinical Case

- 22-year-old man with no medical history came from Brazil
- Symptoms: tumor in left testicle (3 months of evolution)
- **DHL: 287 U/L**
- **AFP: 1ng/ml**
- **HCG: 0.6mIU/ml**
- US: The left testicle shows 1 solid lesions of ovoid morphology 45x38mm dependent upper pole, suggestive of Neoplasm.
- He underwent surgery (06/01/22)



Clinical Case

- Pathology Report:

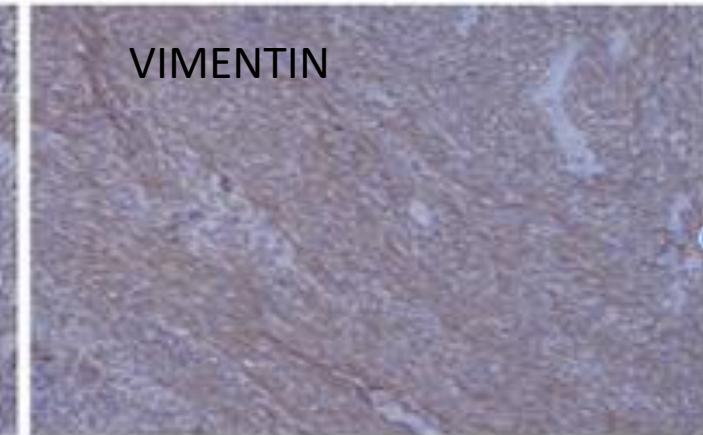
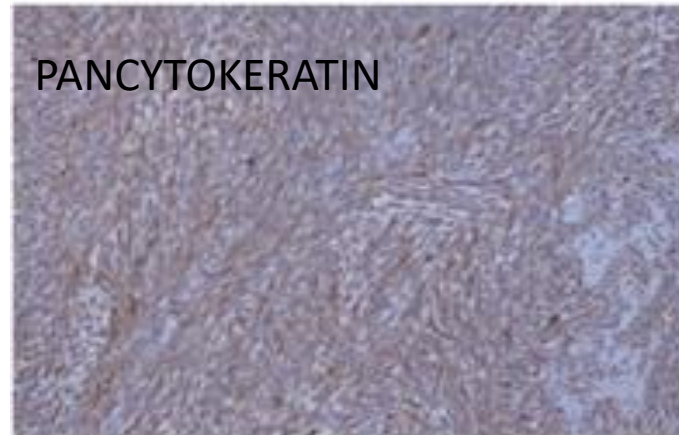
Macroscopy: Left Testicle 6.5 x 5 x 3.5cm. The testicle shows opaque white solid lesion with extensive areas of hemorrhage measuring 43x 25 mm.

- Tunica albugínea free of neoplasm
- 25mitoses/10 field of high magnification
- Grade III

Diagnosis: Malignant undifferentiated tumor of spindle and oval cells with areas of necrosis

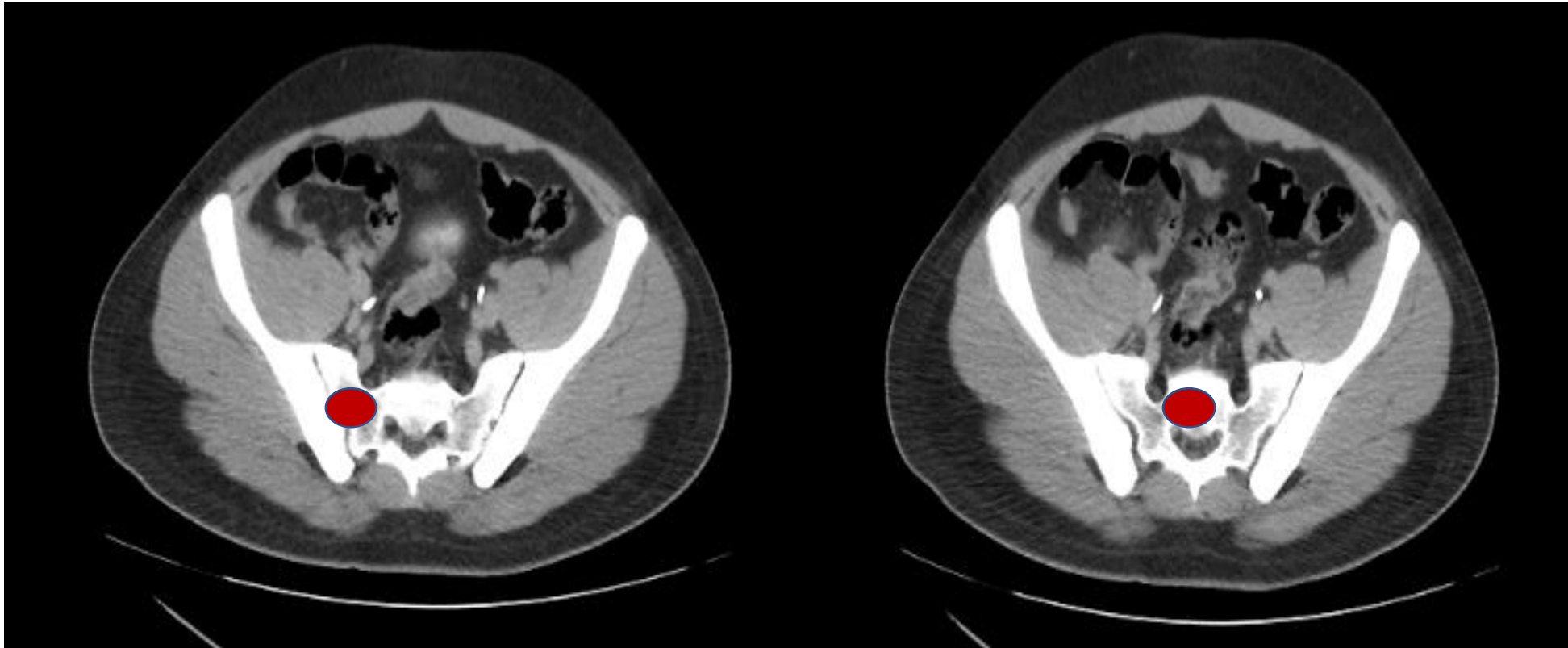
CONCLUSION: The immunohistochemical findings support a SYNOVIAL SARCOMA.

- SMOOTH MUSCLE ACTIN: positive in tumor cells.
- SPECIFIC MUSCLE ACTIN: positive in tumor cells.
- BCL-2: -Diffuse positive in tumor cells.
- PANCYTOKERATIN (AE1/AE3): positive in isolated tumor cells.
- EMA (Epithelial Membrane Antigen): positive in tumor cells.
- S-100: Negative in tumor cells.
- DESMINA: Positive focal tumor cells.
- CD34: Negative tumor cells.
- VIMENTIN: Diffuse positive in tumor cells.



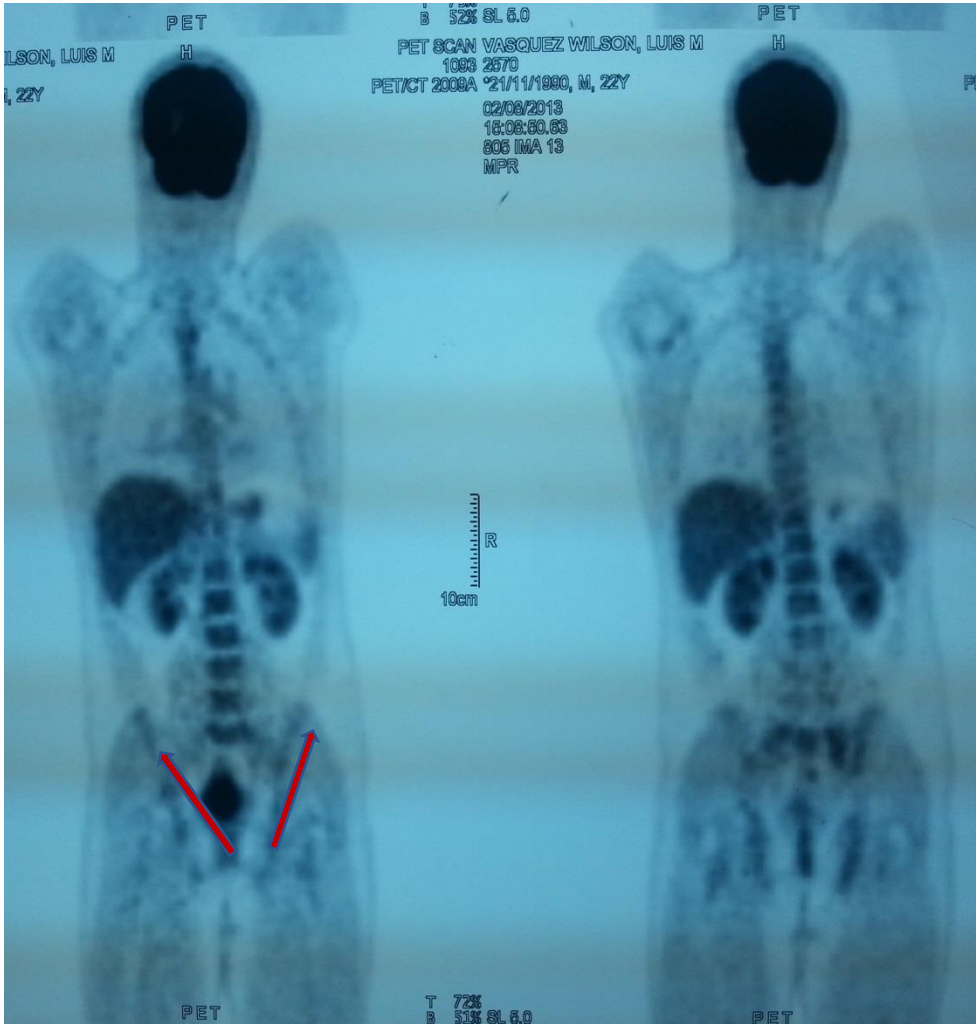
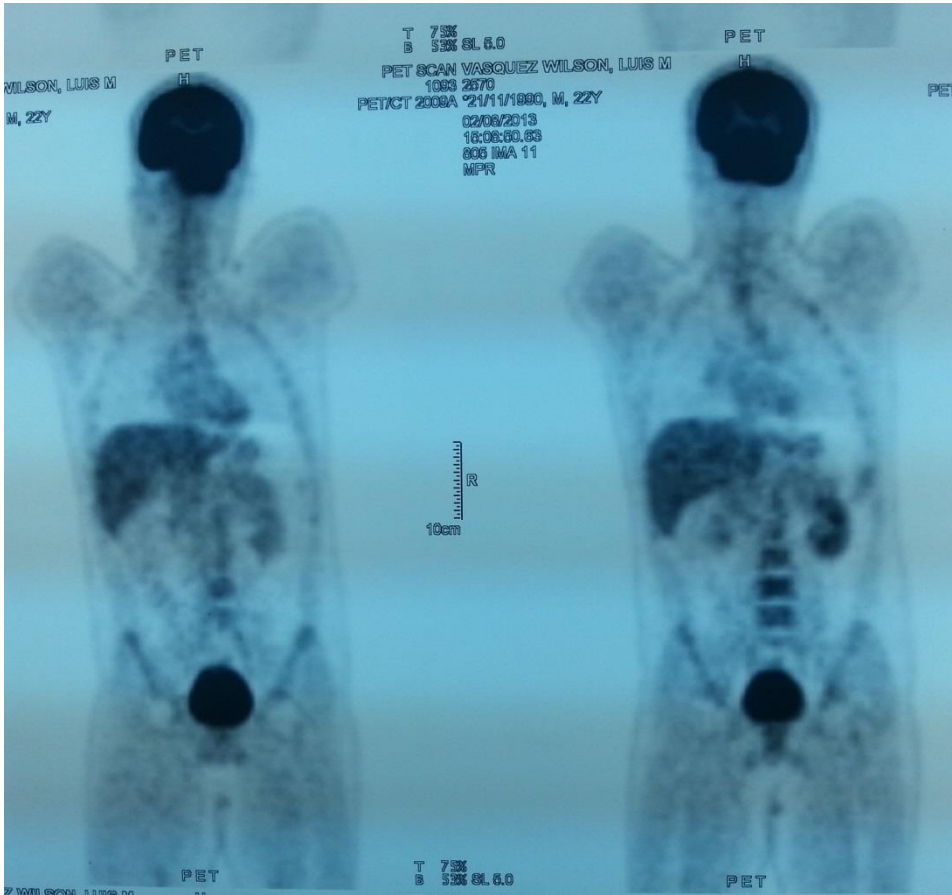
Staging

- CT SCAN:
- CHEST : (-)
- ABDOMINAL / PELVIC: lymphadenopathy in iliac and inguinal chains, measuring between 8 and 22mm on the left and right side



Staging

PET/CT: (-)



Diagnosis

- **High Risk Testicular sinovial sarcoma STAGE I**



Questions

- In high risk patient, What treatment would you recommend ?
- Surgery alone + observation
- Radiotherapy + RPL
- Chemotherapy (doublet vs monotherapy)

- Do you recommend a genetic platform for ?
- Germline / genetic mutation ?
- NGS / Pd-L1 / TMB / MSI ? NTRK ?





Bahía de Asunción

National University of Asunción School of Medical Sciences

Pathological Anatomy Department
Department of Medical Oncology



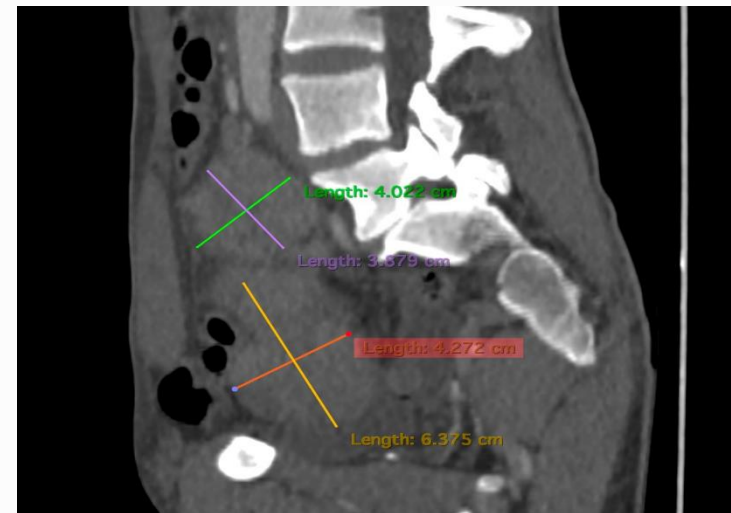
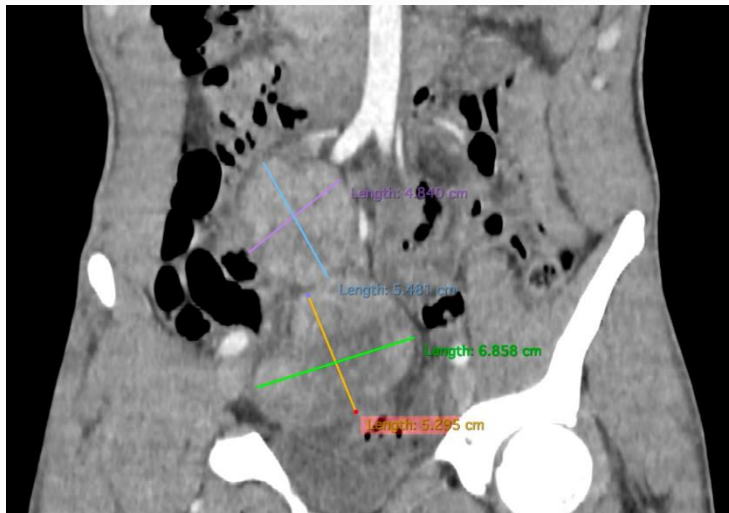
Malignant gastrointestinal neuroectodermal tumor

San Lorenzo. Paraguay
June 23, 2022

CLINICAL PICTURE STARTS IN THE YEAR 2020, WITH ABDOMINAL PAIN LOCATED IN THE HYPOGASTRIC, WITH IRRADIATION TO THE LEFT FLANK, HAS VARIABLE INTENSITY AND CONSTRICTIVE CHARACTER, WHICH IS RELIEVED WITH ANTISPASMODICS, ALSO PRESENTS IRREGULAR COURSE WITH PERIODS OF REMISSION AND EXACERBATION OF PAIN, ACCOMPANIED BY CHANGES IN THE DEFECATORY HABIT.

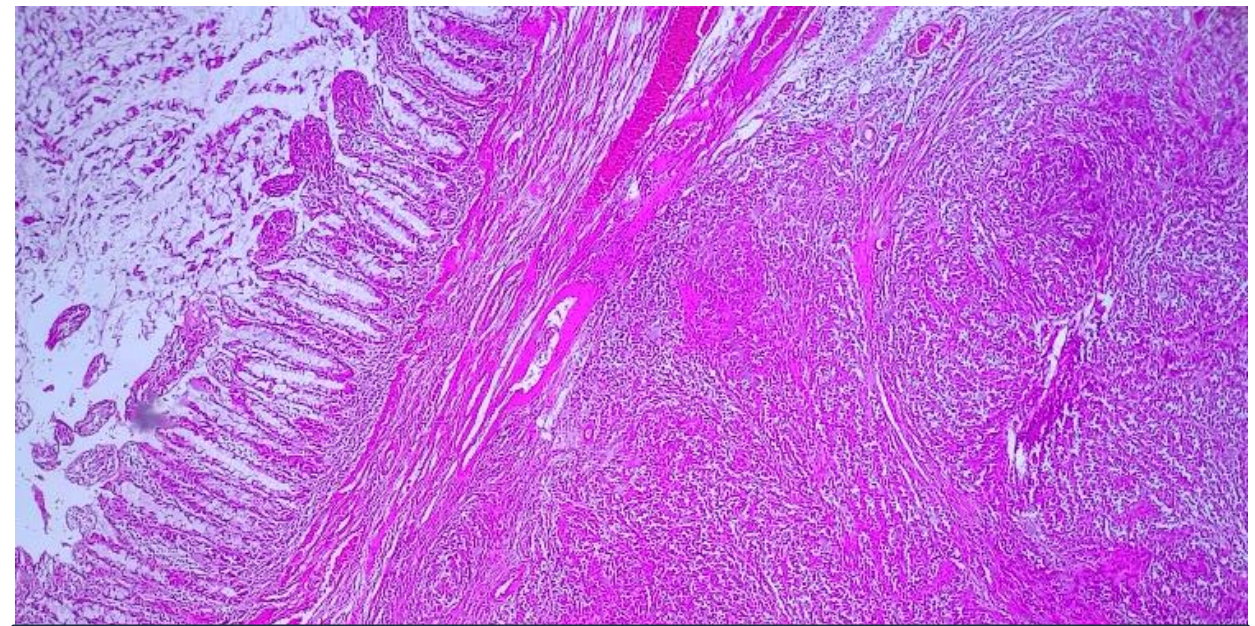
DENIED WEIGHT LOSS, ASTHENIA, ANOREXIA, OR OTHER ACCOMPANYING SYMPTOMS.

- 01/10/21: VIDEO COLONOSCOPY: SIGMOID CAUGHT IN THE PELVIS WITH AN EXTRINSIC COMPRESSION THAT TAKES THE RECTUM SIGMOID JUNCTION AND THE INFERIOR SIGMOID, WITHOUT COMPROMISING THE COLON.
- 14/10/21: CT: MESENTERIC SOLID MASS THAT MEASURES 118 X 71 X 53 MM. WITH NODE METASTASIS.

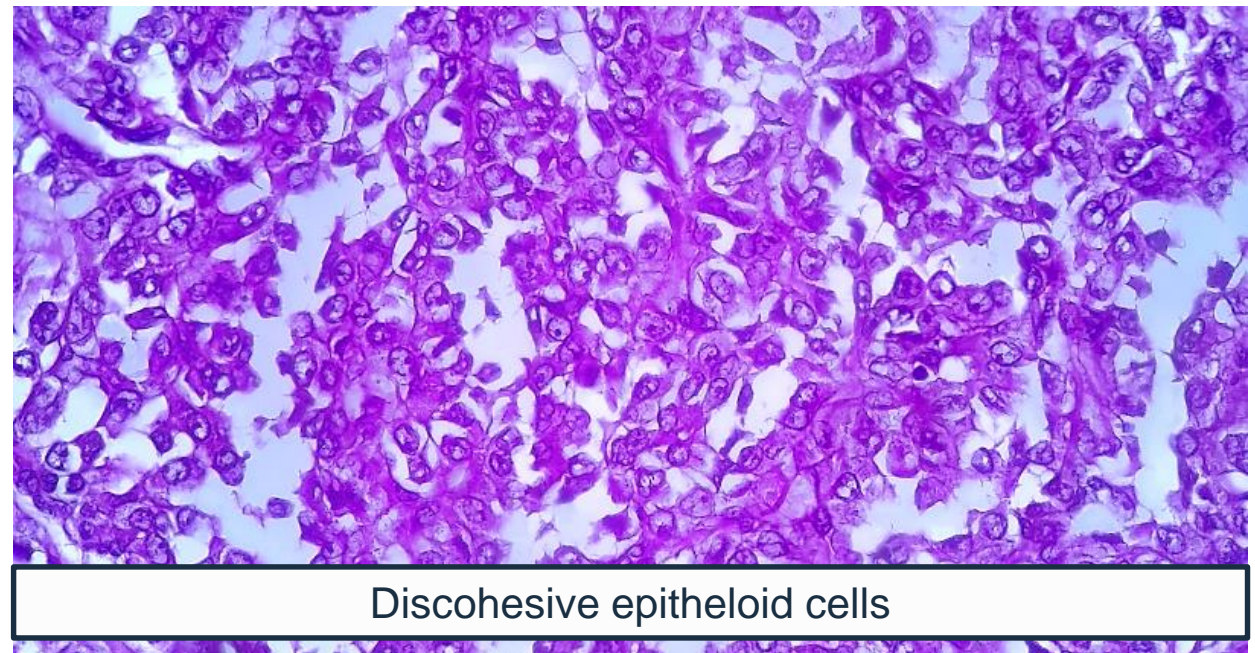


- 06/01/22: SURGERY: EXPLORATORY LAPAROTOMY AND EXERESIS OF THE TUMOR THAT MEASURES 10 X 5 X 5 CM LOCATED IN THE ROOT OF THE MESENTERY IN RELATION TO THE TERMINAL ILEUM, 10 CM FROM THE ILEOCECAL VALVE, WITH ADHERENCE TO THE BLADDER CUPULA.
- IN THE INVENTORY OF THE CAVITY, NO LESIONS ARE OBSERVED IN THE REST OF THE DIGESTIVE TUBE, AND NO INCREASED LYMPH NODES ARE OBSERVED.

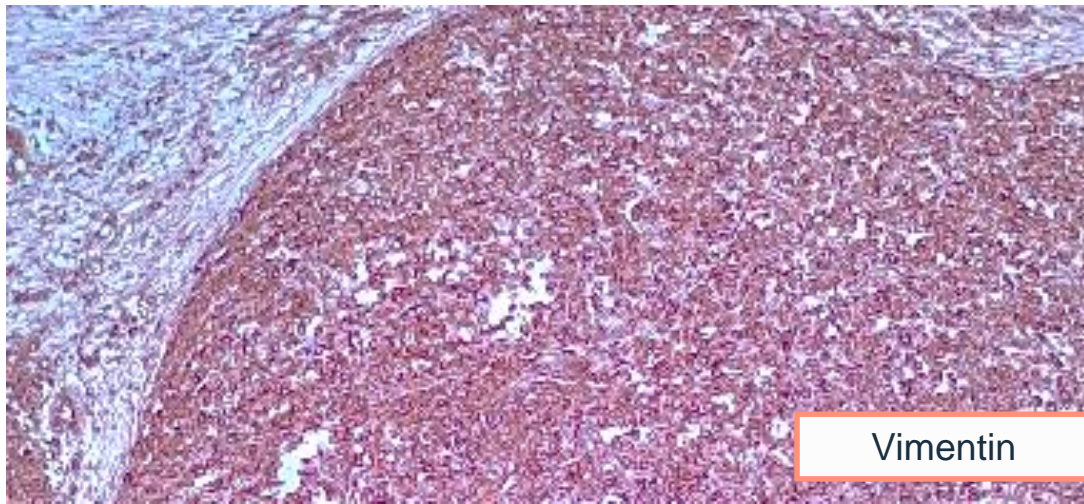
Tumor in the terminal ileum with lymph node metastasis



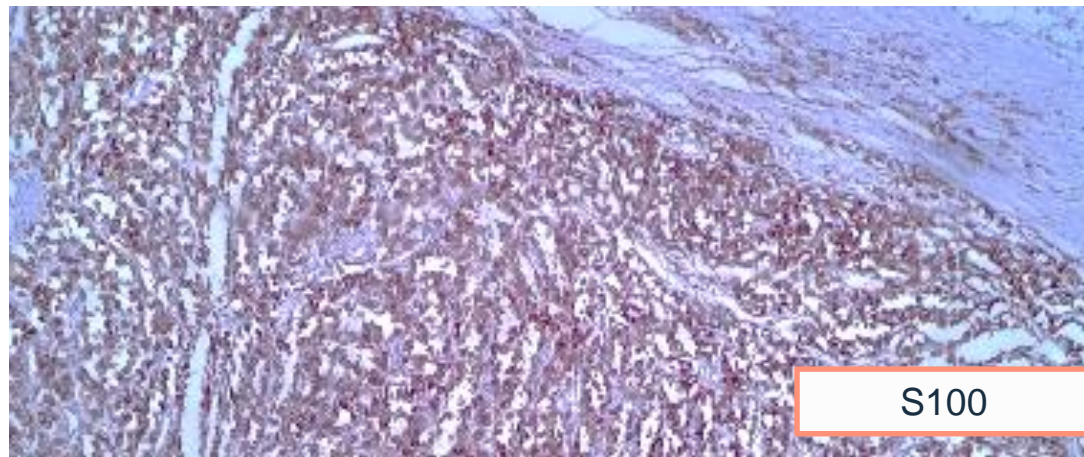
Diffuse multinodular proliferation



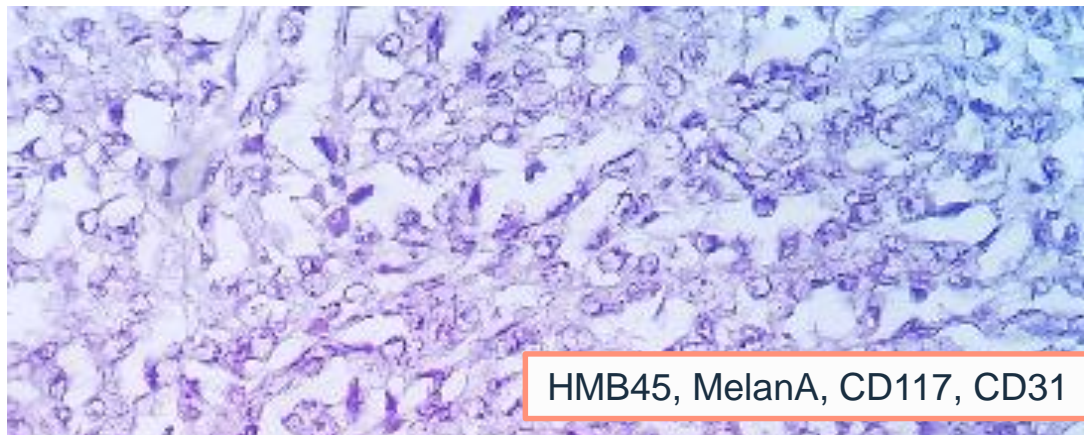
Discohesive epithelioid cells



Vimentin



S100



HMB45, MelanA, CD117, CD31

P Presentaci...

P Presentaci...



Montgomery, Eliza... 10:52



para Anatomía, yo ▾

Agree 100% with your diagnosis.

Elizabeth Anne Montgomery, MD

Professor of Pathology

Vice Chair, Academic Development

University of Miami Miller School of Medicine

Holtz Building

[1611 NW 12th Avenue](#)

Room 2044A

Miami FL 33136-1005

Office 305-585-3167

Is chemotherapy treatment necessary?

Which protocol should be followed?

How would the follow up be?



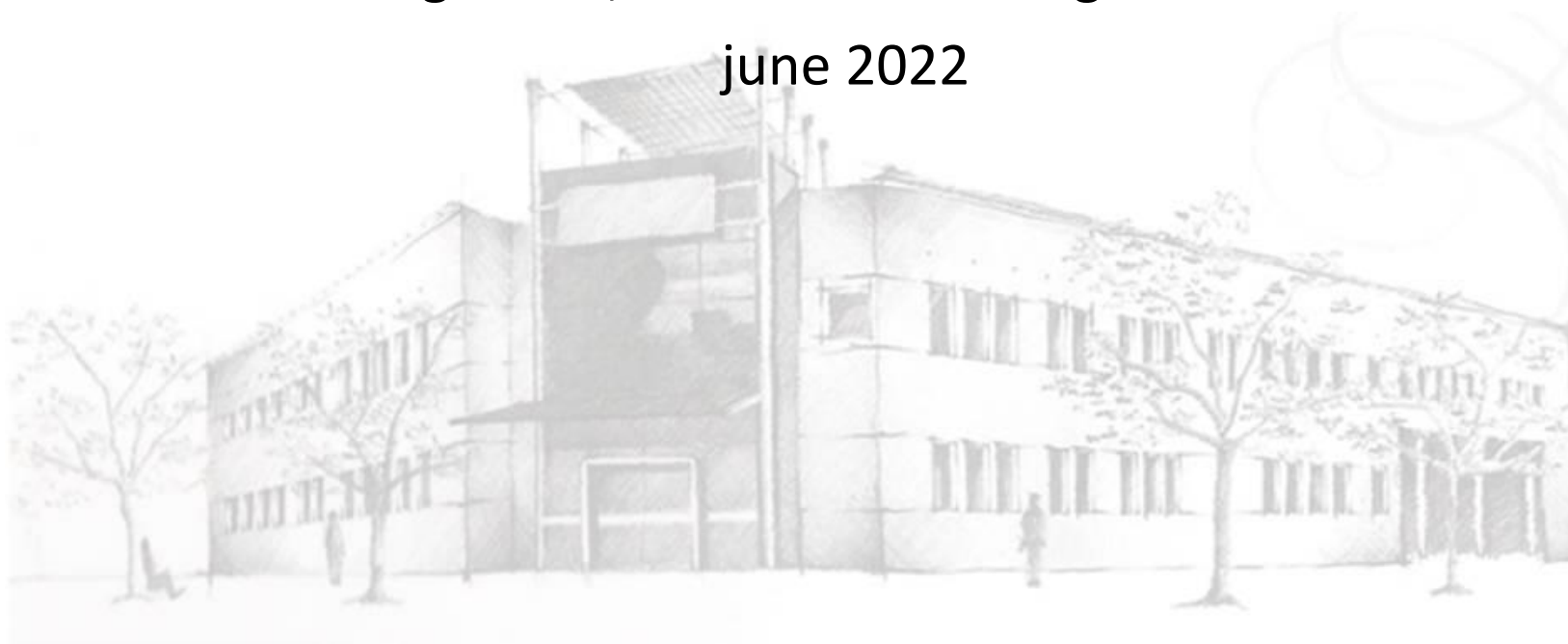
Panteón Nacional de los Héroes



SELNET tumor board

Argentina, Alexander Fleming Institute

june 2022



24-year-old patient without relevant clinical history

December 2021 emergency surgery for abdominal pain

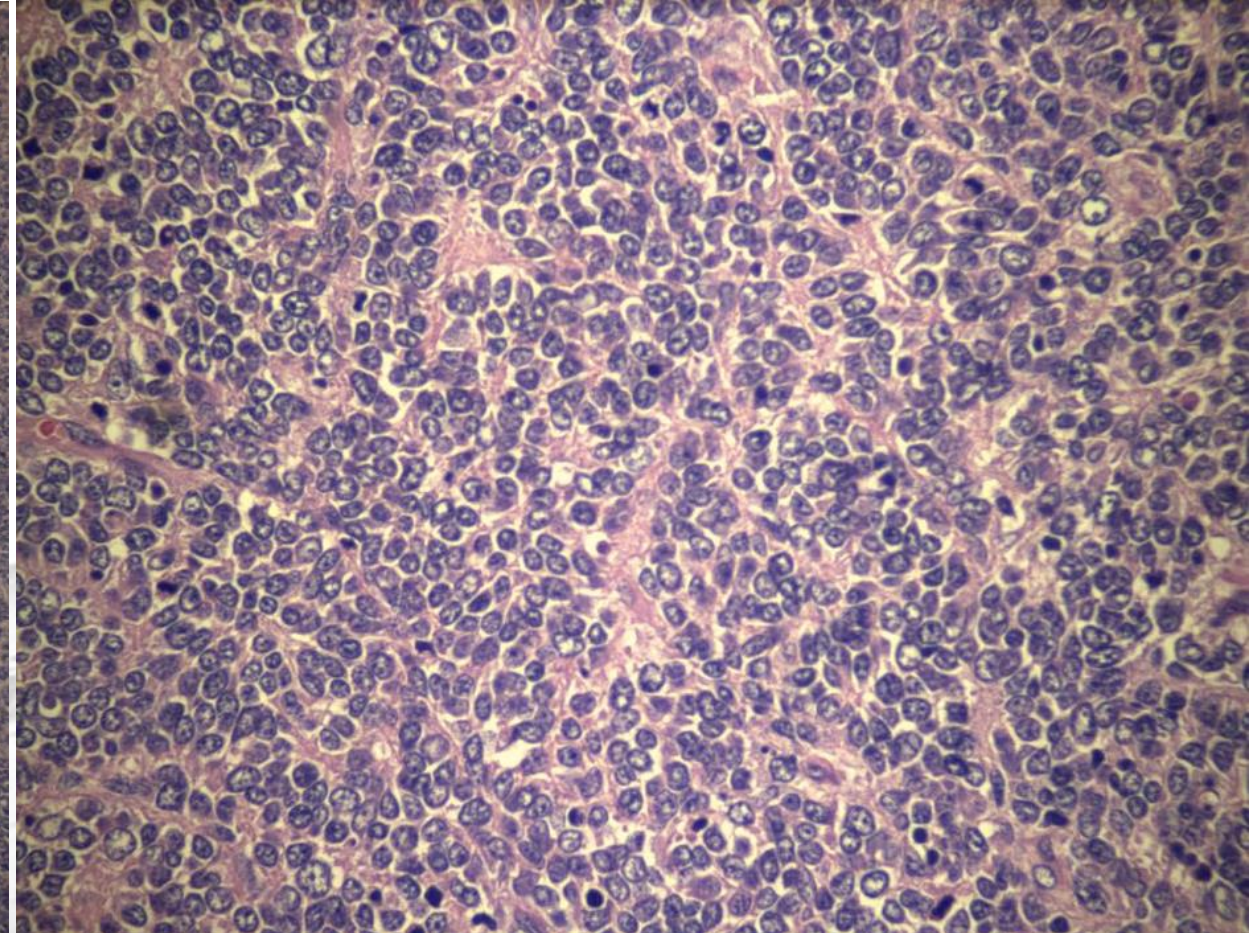
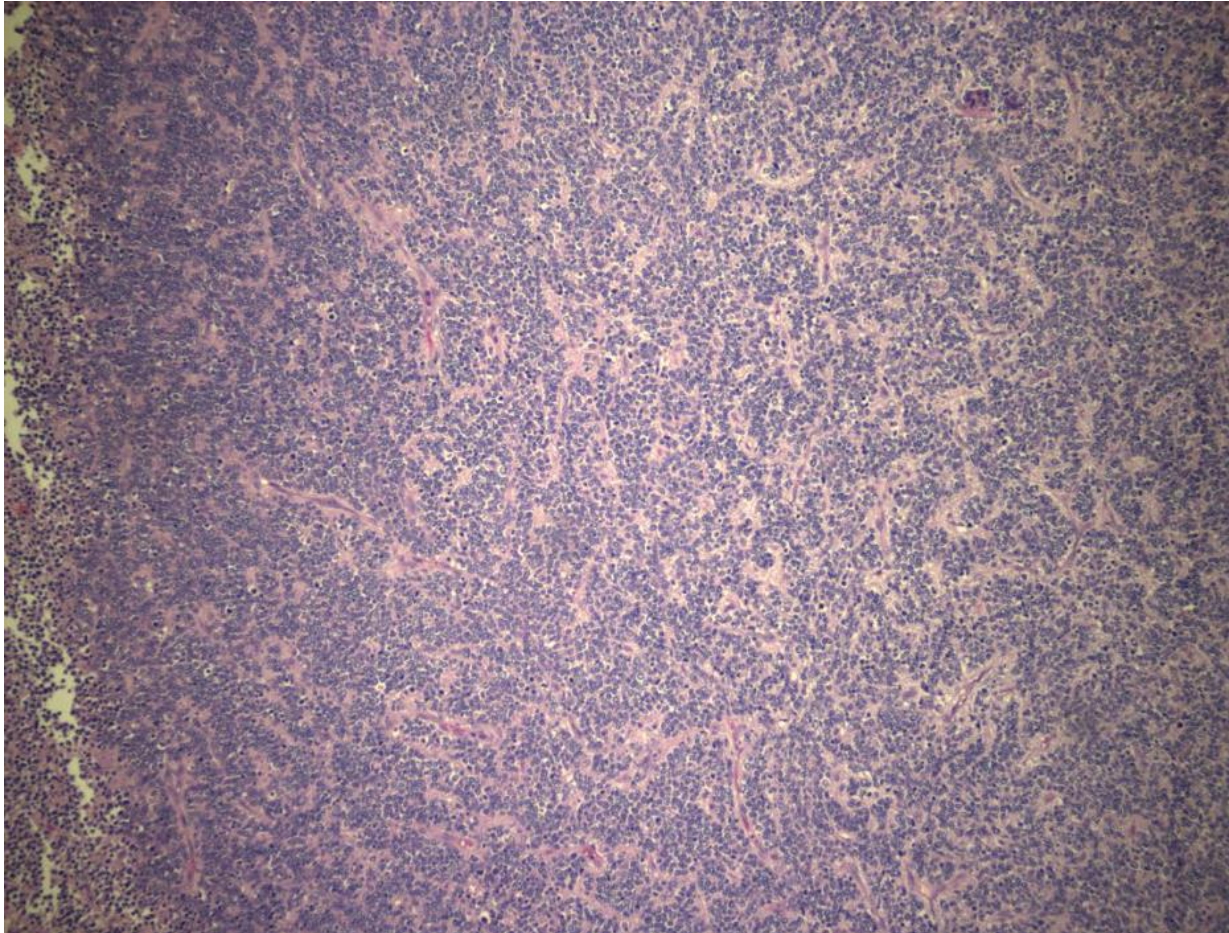
Pathology report:

Macroscopy: several fragments in their entirety measure 10 + 9 + 9 cm

Surgeon reports: peritoneal ascites



Local pathology report: Ewing's sarcoma-like tumor



Local pathology report: Ewing's sarcoma-like tumor

FLI1

CD99

NKX2.2

Local pathology report: Ewing's sarcoma-like tumor

CKAE1-AE3: Negativo.

Cromogranina: Negativo.

Sinaptofisina: Negativo.

INMS1: Negativo.

CD99: Positivo Focal.

FLI-1: Positivo en aisladas células.

CD45: Negativo.

WT1: Negativo.

NKX2.2: Positivo focal.

Ki67: Positividad en 60% de células tumorales.

Técnicas de inmunohistoquímica realizadas por la Dra. Maria Teresa Pombo y posterior transcriptas en este informe, del original nº 70248.



Local pathology report: Ewing's sarcoma-like tumor

EWSR1 rearrangement by direct FISH using probes from the 5' and 3' regions of the gene: **NEGATIVE**

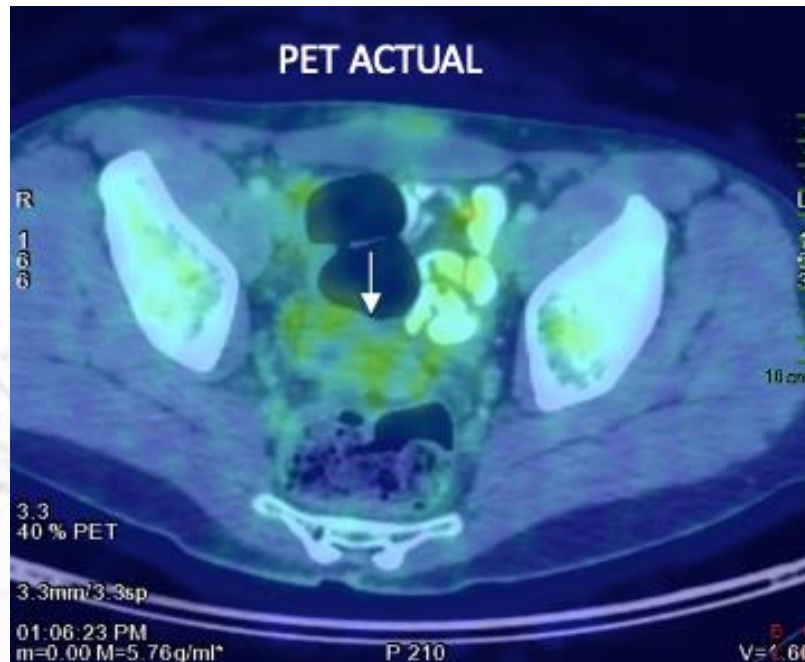


January 2022, abdominal pain begins again and nodules are confirmed by ultrasound and CT

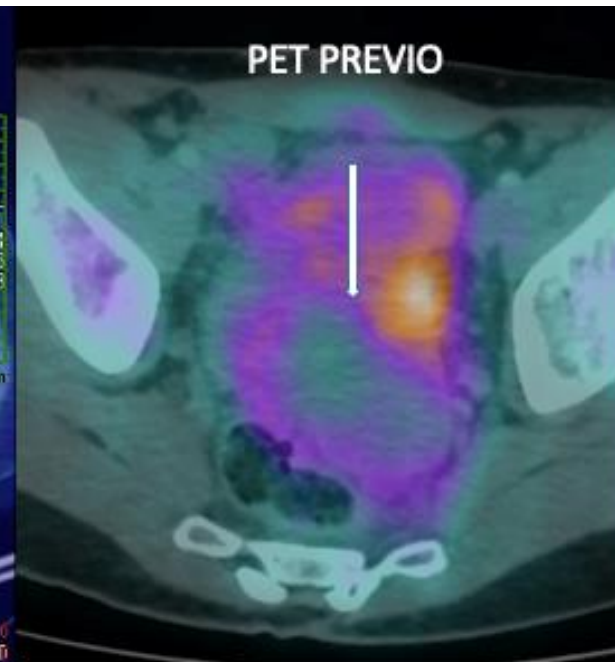
- PET multiple abdominal solid cystic lesions with slight peripheral metabolism

January 2022 VAC-IE every 2 weeks was indicated

After 4 cycles



Initial PET



NGS testing

Muestra	Material	Organo:	Lateralidad:
2-486	Biopsia (taco)	Epiplon	----

Material: Tejido fijado en formalina e incluido en parafina.

Taco de biopsia utilizado: protocolo interno 22-2484 1A y 1B (primera y segunda muestra, respectivamente).

Porcentaje tumoral del área seleccionada para extracción de ADN y ARN: 60%

Tipo de tumor: Epiplón. Hallazgos consistentes con sarcoma redondocelular

Se realizó extracción de ácidos nucleicos (ADN y ARN) con kit RecoverAll Total Nucleic Acid Isolation Kit for FFPE (Thermo Fisher) a partir de tejido fijado en formalina e incluido en parafina.

Se obtuvieron ADN y ARN de cantidad y calidad adecuadas para realizar el estudio.

Se realizó secuenciación NGS con panel de genes Oncomine Childhood Cancer Research Assay (Thermo Fisher) en plataforma Ion GeneStudio S5 Plus (Ion Torrent). Se analizaron inserciones, deleciones y mutaciones puntuales en 203 genes y fusiones en 91 genes según workflow provisto por el fabricante utilizando software Ion Reporter (Thermo Fisher).

Genes incluidos en el panel:

ADN (zonas calientes/ hotspots):

ABL1, ABL2, ALK, ACVR1, AKT1, ASXL1, ASXL2, BRAF, CALR, CBL, CCND1, CCND3, CCR5, CDK4, CIC, CREBBP, CRLF2, CSF1R, CSF3R, CTNNB1, DAXX, DNMT3A, EGFR, EP300, ERBB2, ERBB3, ERBB4, ESR1, EZH2, FASLG, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, GATA2, GNA11, GNAQ, H3F3A, HDAC9, HIST1H3B, HRAS, IDH1, IDH2, IL7R, JAK1, JAK2, JAK3, KDM4C, KDR, KIT, KRAS, MAP2K1, MAP2K2, MET, MPL, MSH6, MTOR, MYC, MYCN, NCOR2, NOTCH1, NPM1, NRAS, NT5C2, PAX5, PDGFRA, PDGFRB, PIK3CA, PIK3R1, PPM1D, PTPN11, RAF1, RET, RHOA, SETBP1, SETD2, SH2B3, SH2D1A, SMO, STAT3, STAT5B, TERT, TPMT, USP7, ZMYM3.

ADN (Cobertura completa de exones):

APC, ARID1A, ARID1B, ATRX, CDKN2A, CDKN2B, CEBPA, CHD7, CRLF1, DDX3X, DICER1, EBF1, EED, FAS, GATA1, GATA3, GNA13, ID3, IKZF1, KDM6A, KMT2D, MYOD1, NF1, NF2, PHF6, PRPS1, PSMB5, PTCH1, PTEN, RB1, RUNX1, SMARCA4, SMARCB1, SOCS2, SUFU, SUZ12, TCF3, TET2, TP53, TSC1, TSC2, WHSC1, WT1, XIAP.

ARN (fusiones):

ABL1, ABL2, AFF3, ALK, BCL11B, BCOR, BCR, BRAF, CAMTA1, CCND1, CIC, CREBBP, CRLF2, CSF1R, DUSP22, EGFR, ETV6, EWSR1, FGFR1, FGFR2, FGFR3, FLT3, FOSB, FUS, GLI1, GLIS2, HMGA2, JAK2, KAT6A, KMT2A, KMT2B, KMT2C, KMT2D, LMO2, MAML2, MAN2B1, MECOM, MEF2D, MET, MKL1, MLLT10, MN1, MYB, MYBL1, MYH11, MYH9, NCOA2, NCOR1, NOTCH1, NOTCH2, NOTCH4, NPM1, NR4A3, NTRK1, NTRK2, NTRK3, NUP214, NUP98, NUTM1, NUTM2B, PAX3, PAX5, PAX7, PDGFB, PDGFRA, PDGFRB, PLAG1, RAF1, RANBP17, RARA, RECK, RELA, RET, ROS1, RUNX1, SS18, SSBP2, STAG2, STAT6, TAL1, TCF3, TFE3, TP63, TSLP, TSPAN4, UBTB, USP6, WHSC1, YAP1, ZMYND11, ZNF384.



CONCLUSION Y RESULTADOS:

Informe de repetición de estudio 3/6/22

El estudio se repite en 2 ocasiones (tacos 1A y 1B) debido a la calidad subóptima de los ácidos nucleicos y la amplificación deficiente de las bibliotecas de ADN y ARN.

ADN:

Negativo: no se detectan variantes de significancia clínica a nivel del ADN.

ARN (fusiones):

Se detecta la siguiente fusión génica*:

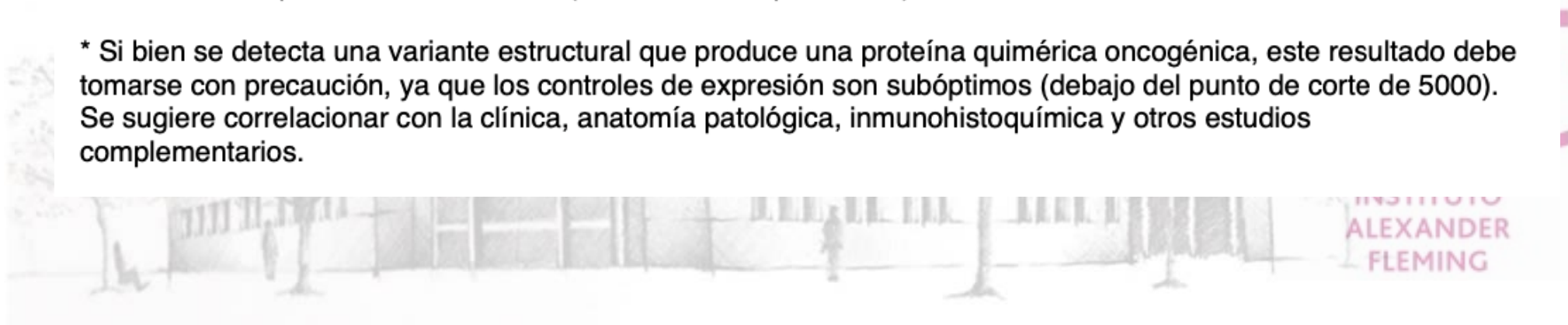
Genes involucrados: CREBBP-ZNF384

Transcripto de fusión resultante: exón 6 CREBBP - exón 2 ZNF384

Cantidad de lecturas: 139 lecturas (en el total de repeticiones)

Controles de expresión: 2637 lecturas (en el total de repeticiones)

* Si bien se detecta una variante estructural que produce una proteína quimérica oncogénica, este resultado debe tomarse con precaución, ya que los controles de expresión son subóptimos (debajo del punto de corte de 5000). Se sugiere correlacionar con la clínica, anatomía patológica, inmunohistoquímica y otros estudios complementarios.



June 2022 required hospitalization for low-risk neutropenia

- TC: NED
- PET-CT: not done yet

Currently 9 cycles



Question for the MDT:

- some experience with Ewing like sarcomas with single peritoneal disease
- role of surgery for local control?





**Gracias a todos por
su participación!**