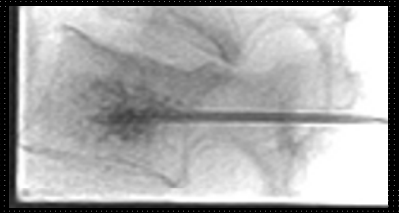
Radiología Intervencionista y Atención Primaria

Radiología para Médicos de Familia



Real Academia de Medicina de la Comunidad Valenciana

SVMFIC

Dra Elena Lonjedo Vicent
Unidad de radiología intervencionista
Hospital Universitario Dr. Peset Valencia

6 de Noviembre 2014

•**La RXVI es una subespecialidad médica de la Radiología** que utiliza procedimientos mínimamente invasivos guiados por imagen para diagnosticar y tratar enfermedades en cualquier órgano o sistema. Al utilizar las técnicas menos invasivas minimizamos riesgos para el paciente mejorando la pronta curación.

Técnicas de imagen

- **Fluoroscopia y CT**
- **Ultrasonidos**
- **Resonancia Magnética**

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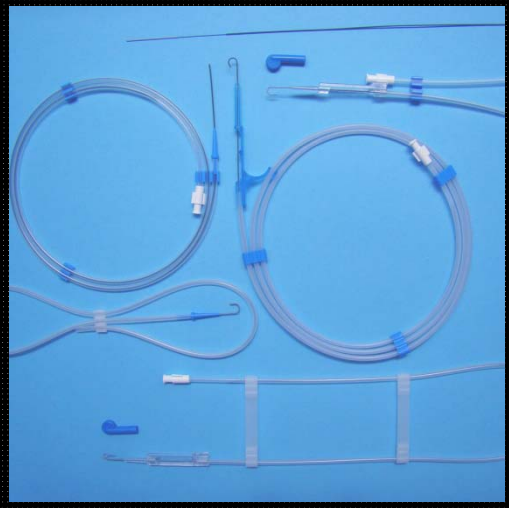
- Agujas
- Catéteres

- Stents



- Guías
- Tubos

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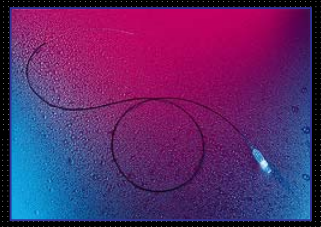
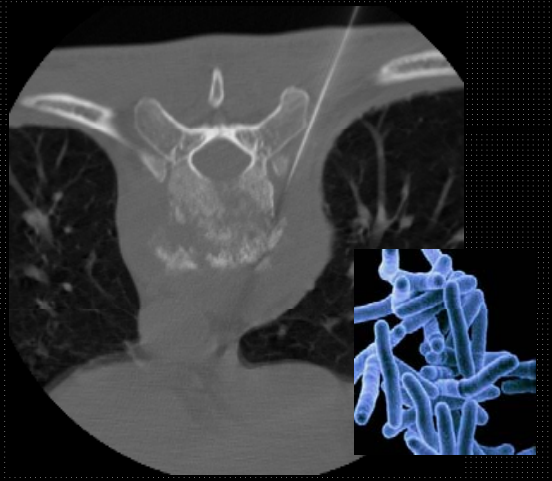
Diferentes materiales de embolización

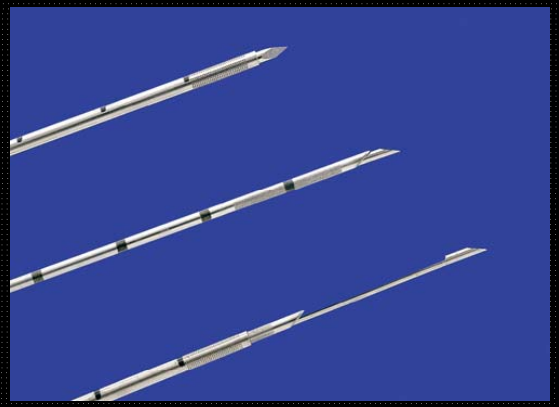


- Gel foam – utilizado para el control del sangrado de cualquier causa como en una fractura de hueso o en la embolización uterina postparto hasta que de tiempo a que cure por sí sóla
- Agentes permanentes: se utilizan para ocluir pequeños vasos de manera permanente como en casos de tumores, malformaciones o lesiones vasculares . Las lesiones subyacentes no van a curar sólas.
  - Partículas y esferas. Ej : Polyvinyl alcohol (PVA). Embospheres, DCBeads
  - *Coils metálicos y tapones*.
  - *Líquidos esclerosantes (*alcohol,onix, geles, pegamentos glubran)

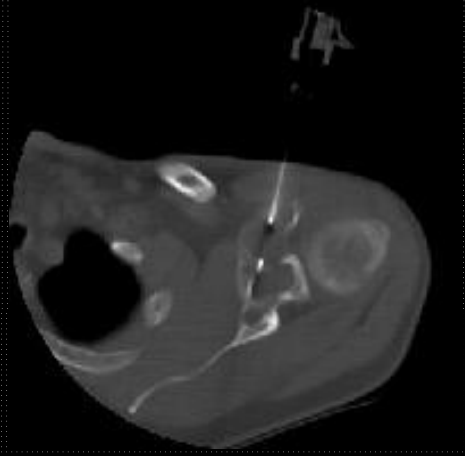
Punciones and drenajes

- PAAF





- BAG



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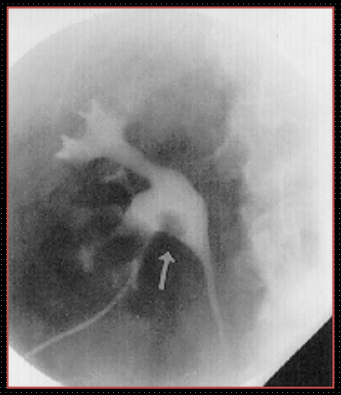
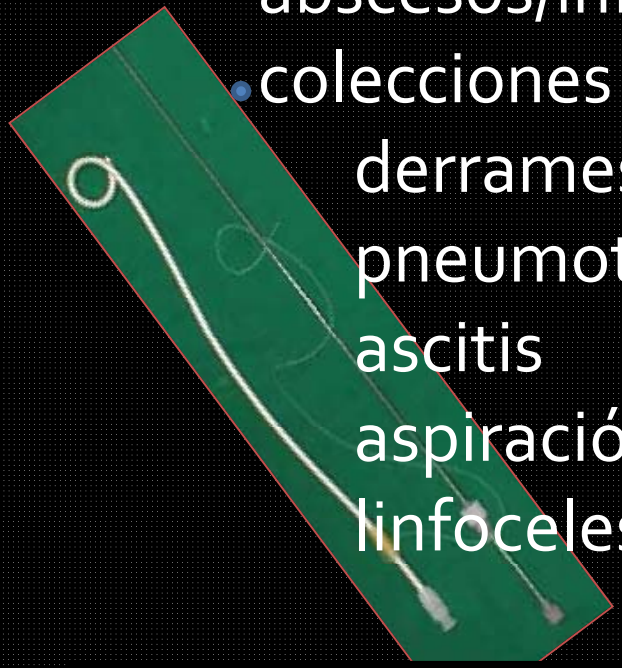
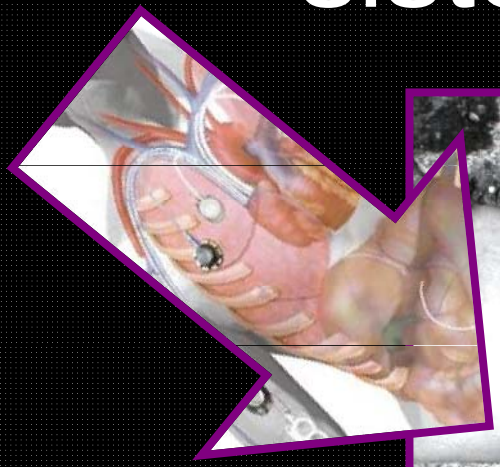
- **Drenajes:**
  - abscesos/infecciones
  - colecciones no infectadas
    - derrames pleurales
    - pneumothorax
    - ascitis
    - aspiración y esclerosis de lesiones quísticas y linfoceles.





Procedimientos en todos los órganos y sistemas



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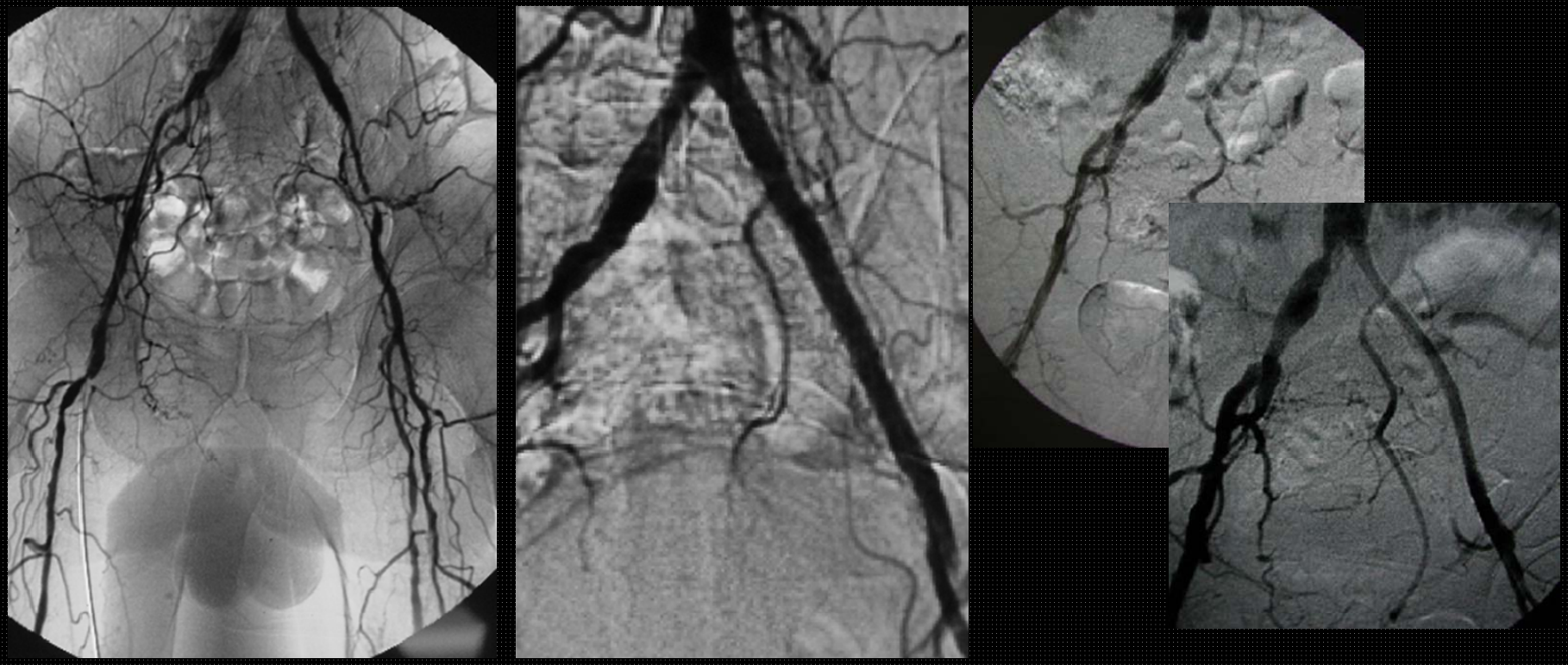
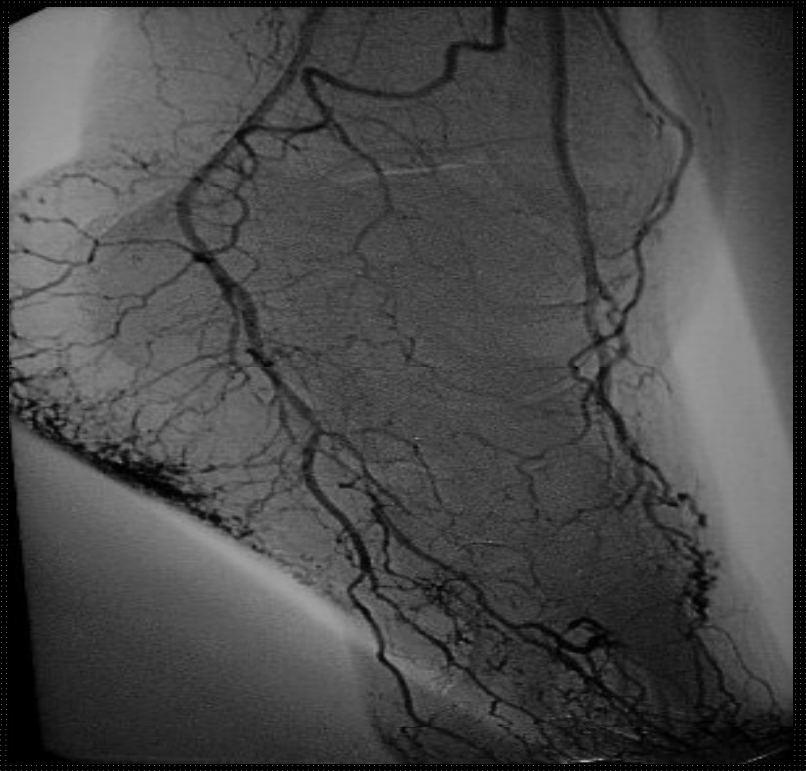
Intervenciones vasculares: ARTERIAL

Enfermedad arterial periférica:

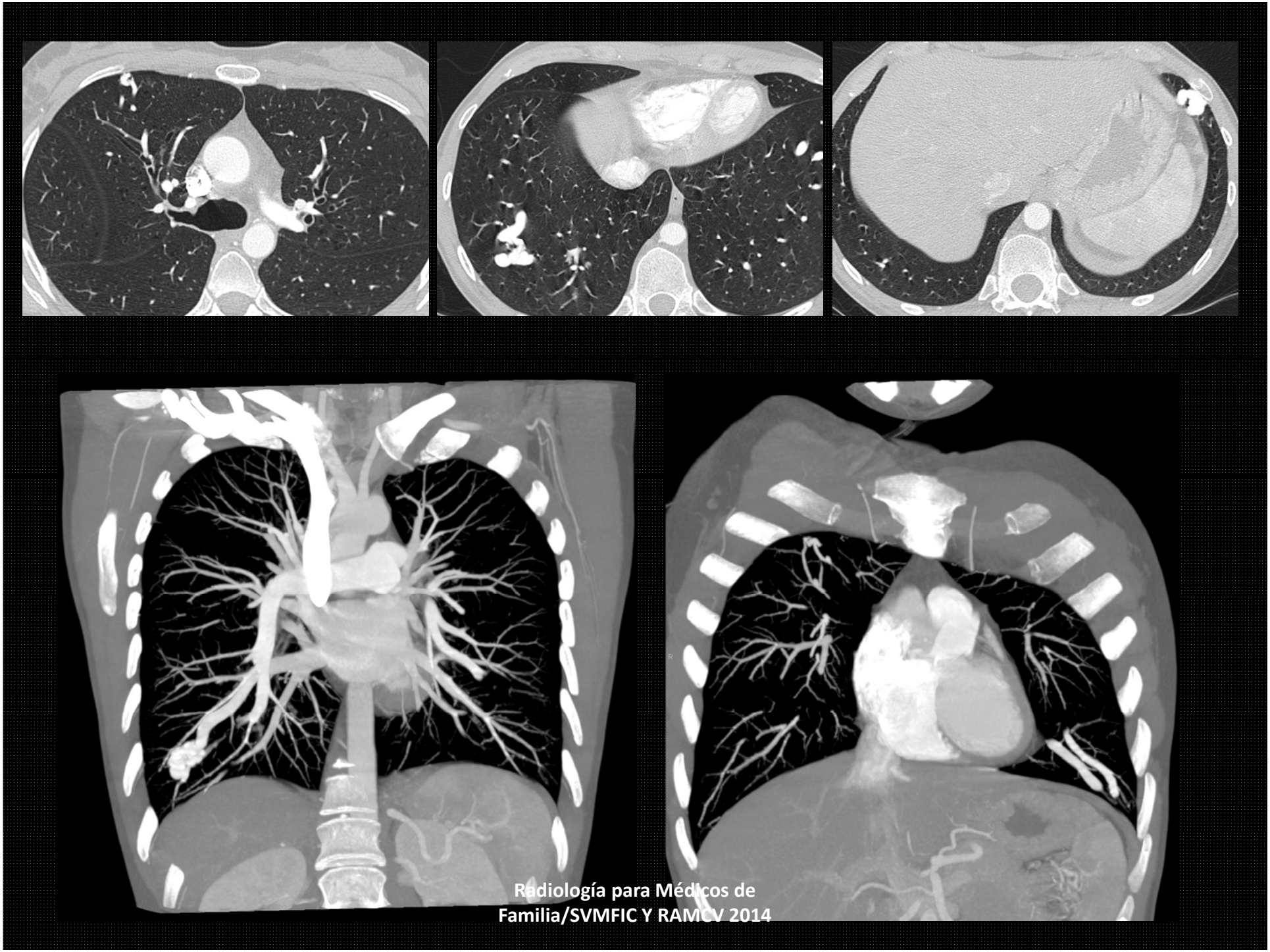
Arterioclerosis como patología más frecuente con pacientes con claudicación glútea o gemelar , úlceras o gangrena. La eco doppler, la angioRM y el angioCT apoyan la sospecha clínica. El tratamiento médico y control de factores de riesgo vascular, la angioplastia o la recanalalización y stenting son técnica habituales. en nuestras salas de RX vascular



BTK “below the knee interventions”: tratamiento por debajo de la rodilla en el salvamento de miembros.



Malformaciones arteriovenosas pulmonares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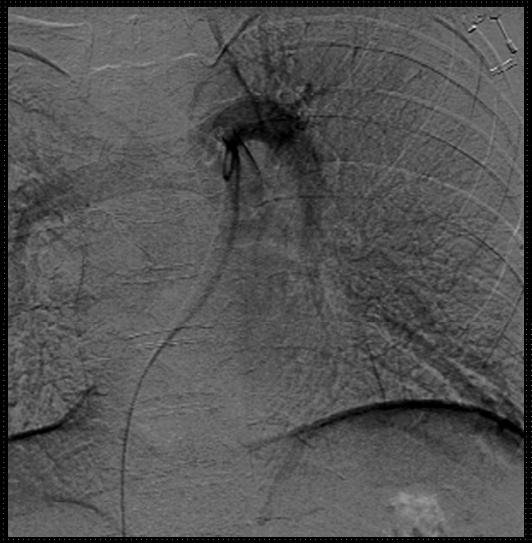
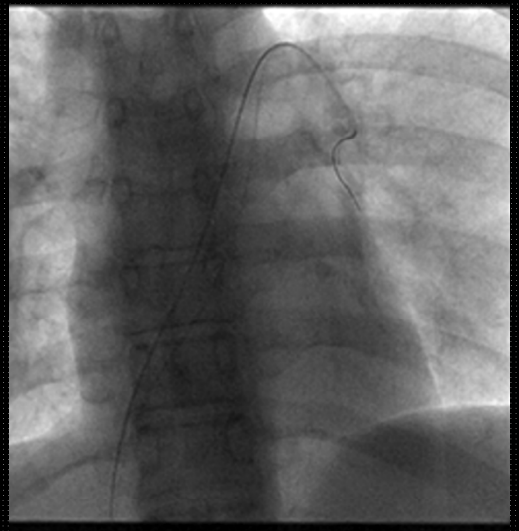
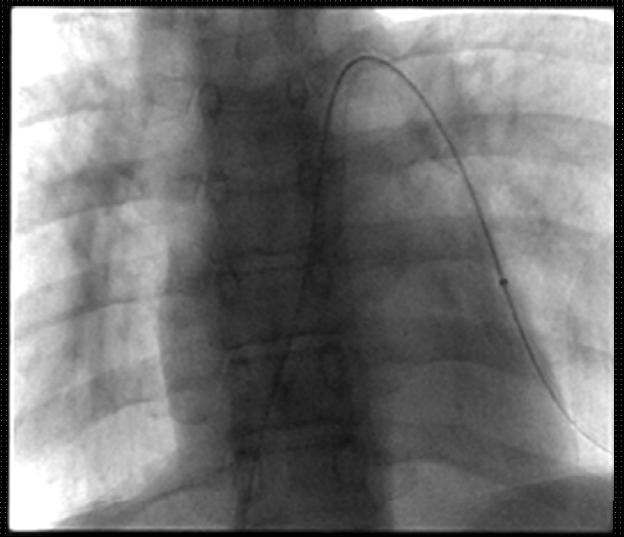
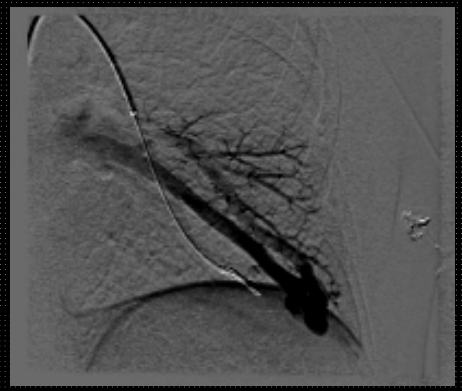
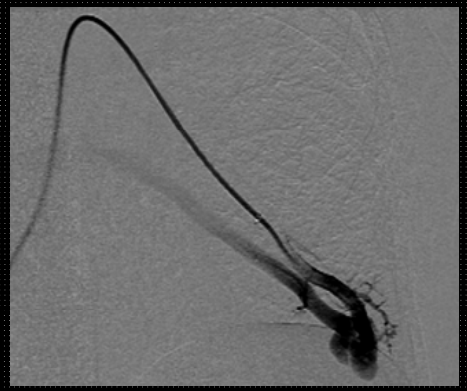
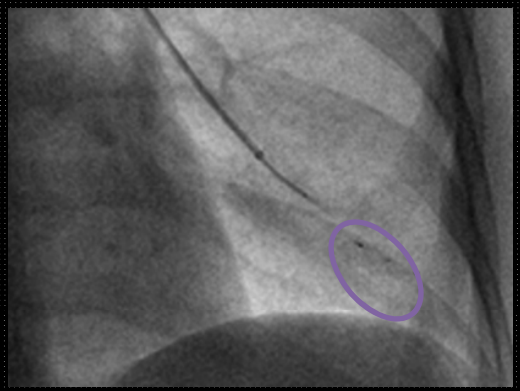
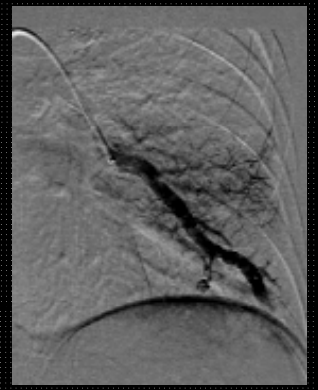
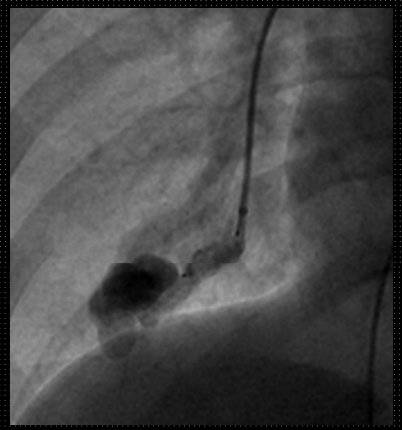
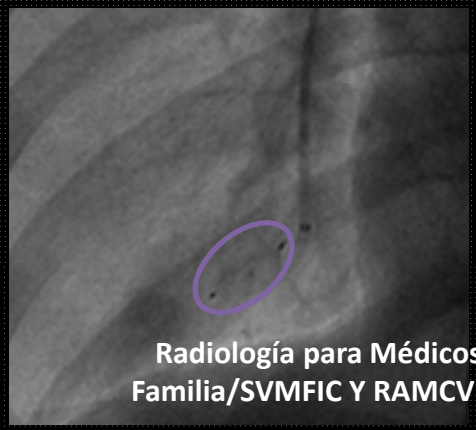

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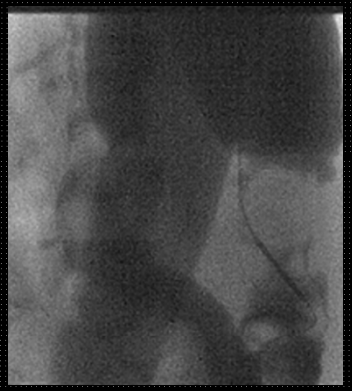

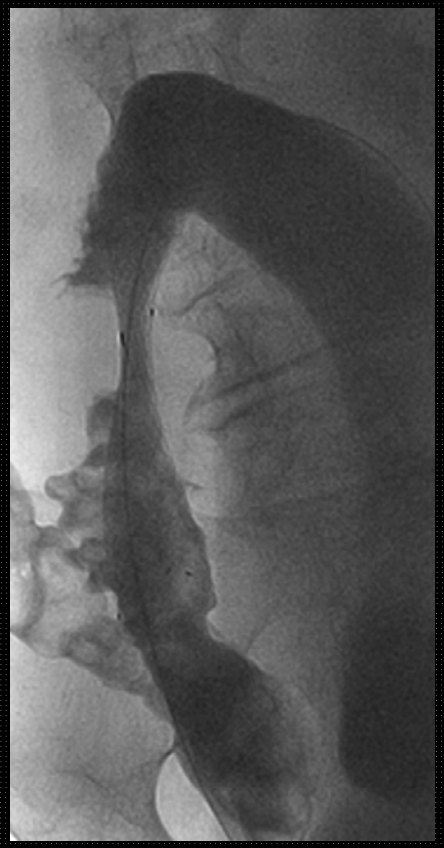

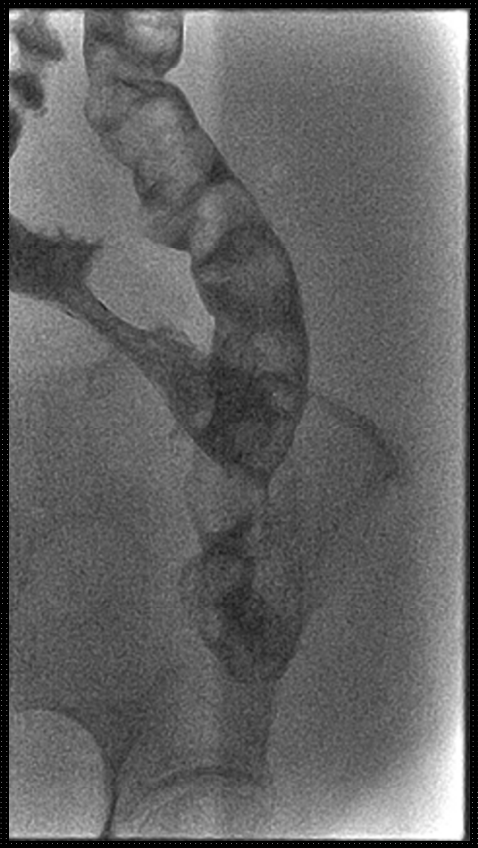

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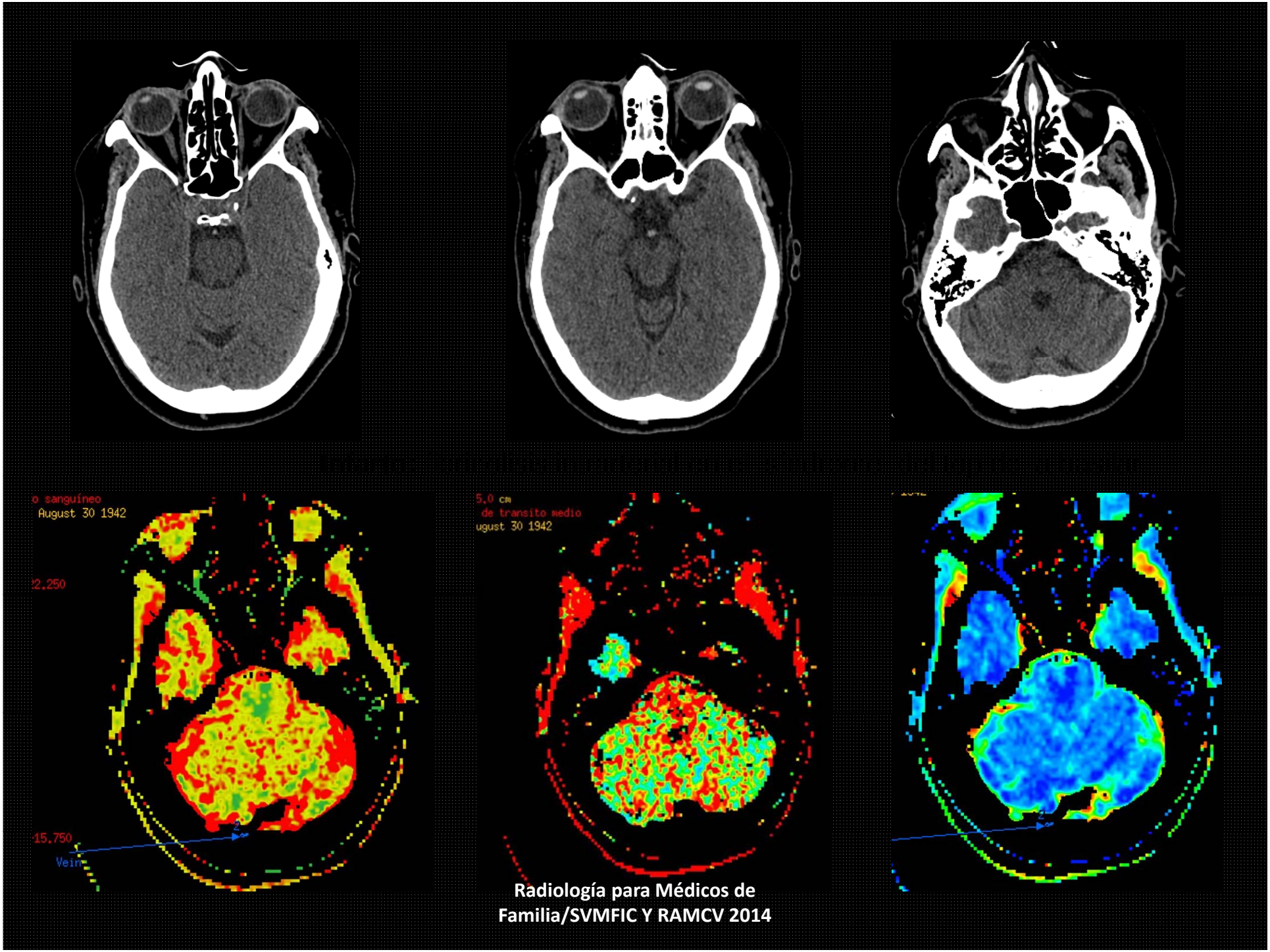
Intervenciones neurológicas

Código ictus
Estenosis carotídea
Esclerosis múltiple



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Sangrado: embolización

.Epistáxis, hemoptisis, hemorragias digestivas, sangrados en el cirrótico, sangrado postparto, metrorragias...

Causas de hemorragia:

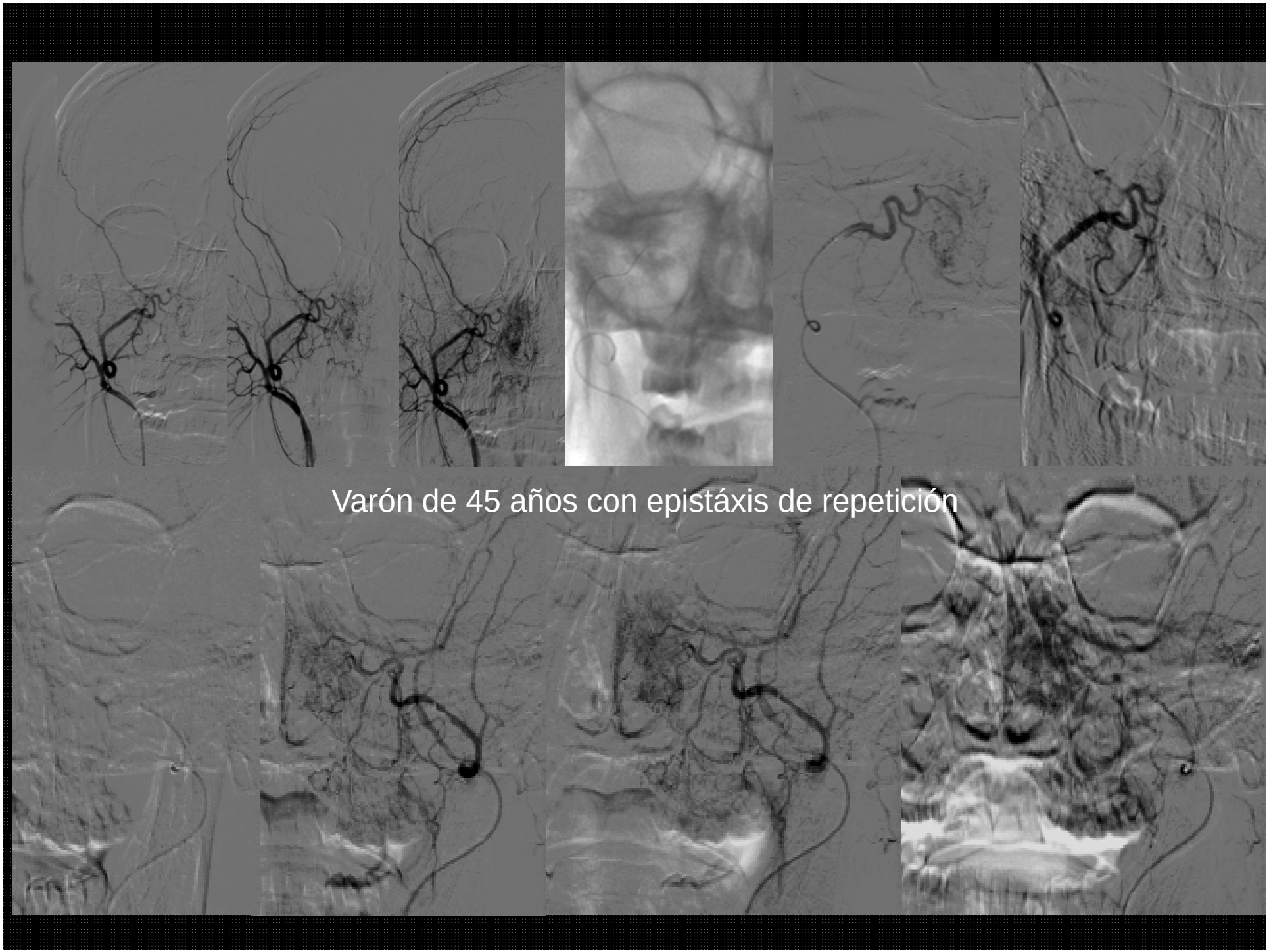
tumores

lesiones yatrogénicas o traumáticas

malformaciones vasculares

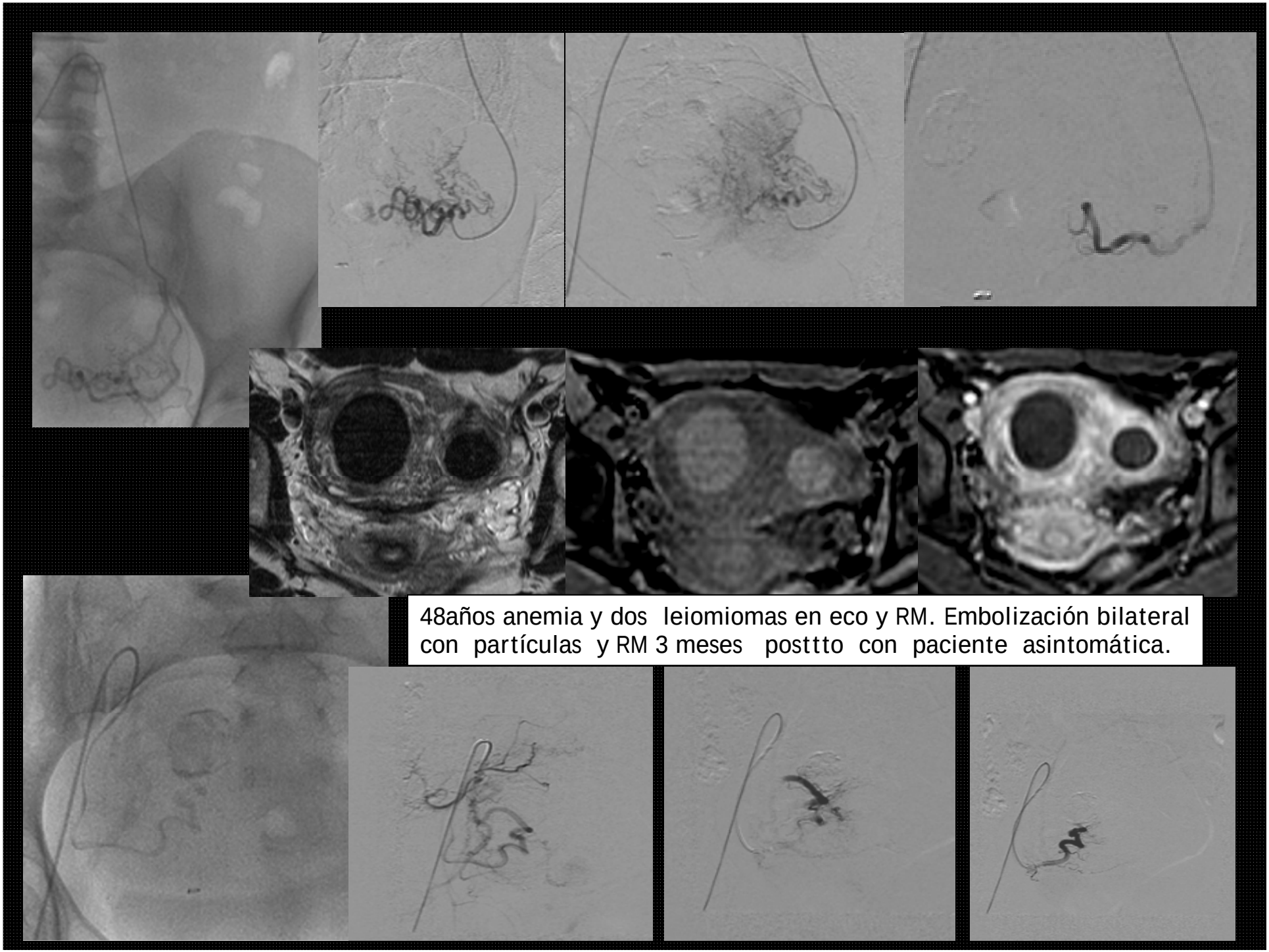
discrasias sanguíneas (importante las secundarias a tratamientos antiagregantes y anticoagulantes)

La gran mayoría de las hemorragias se controlan médicamente . La cirugía y el tratamiento endoscópico tienen un papel según la etiología. La embolización percutánea en el tratamiento de elección en ciertas patologías.



Varón de 45 años con epistáxis de repetición

Embolización tumoral supraselectiva de las arterias maxilares y ramas temporales de ambas acrótidas externa (500-700 µ.)



48años anemia y dos leiomiomas en eco y RM. Embolización bilateral con partículas y RM 3 meses posttto con paciente asintomática.

Intervenciones vasculares: VENAS

Insuficiencia venosa varices de MMII y pélvicas Tto endovescular con láser , radiofrecuencia o escleroterapia.

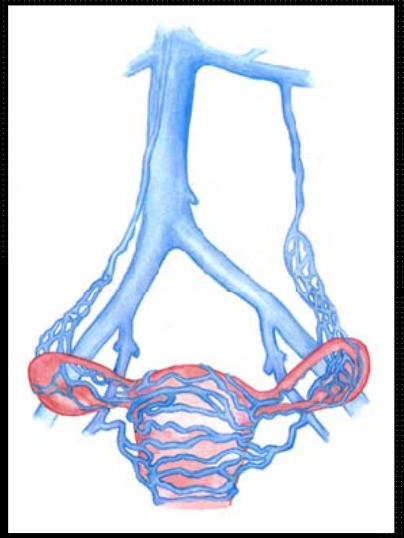
La trombosis venosa profunda evitar el síndrome posttrombótico. Fibrinolisis intravenosa, ATP o stenting (May Turner syndrom).

Colocación de filtros de vena cava

Los pacientes con historia de TEP o de alto riesgo pueden beneficiarse de la colocación de esto filtros que son RECUPERABLES

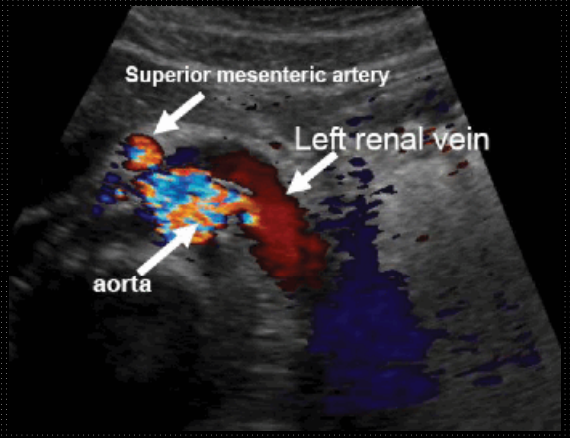
Varices pélvicas

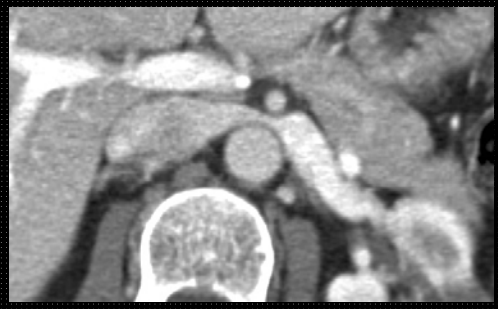
VARICOCELE FEMENINO



- Patología frecuente, infradiagnosticada
  - Dolor pélvico crónico 15% visitas al ginecólogo
  - El 30% se debe al SCP
- Asociación a síndromes “psiquiátricos” (depresión, disfunción sexual…), visitas a múltiples médicos
- Sintomatología poco específica. Diagnóstico clínico difícil. Microhematuria. dolor sordo pélvico, más frecuente izquierdo, mal controlado con analgésicos y que empeora:
  - Postcoital
  - Menstruación
  - De pie (al final del día)
  - Durante el embarazo

Síndrome de congestión pelvica





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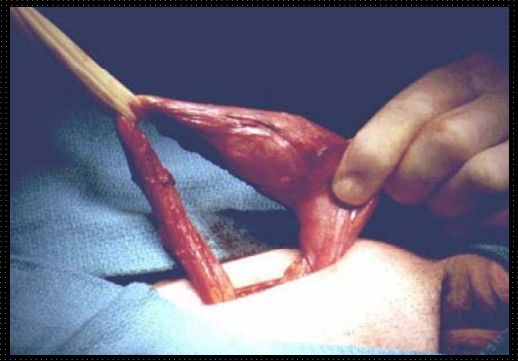
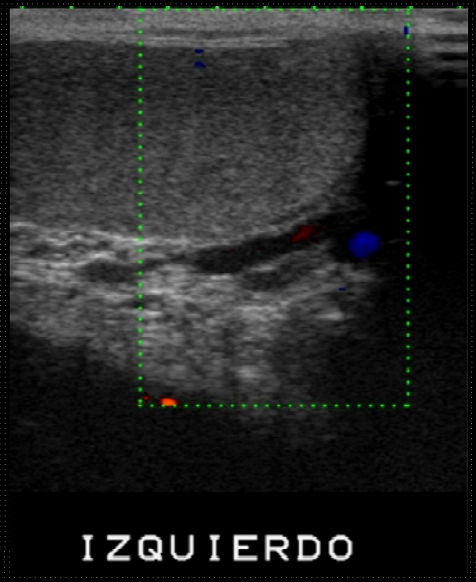
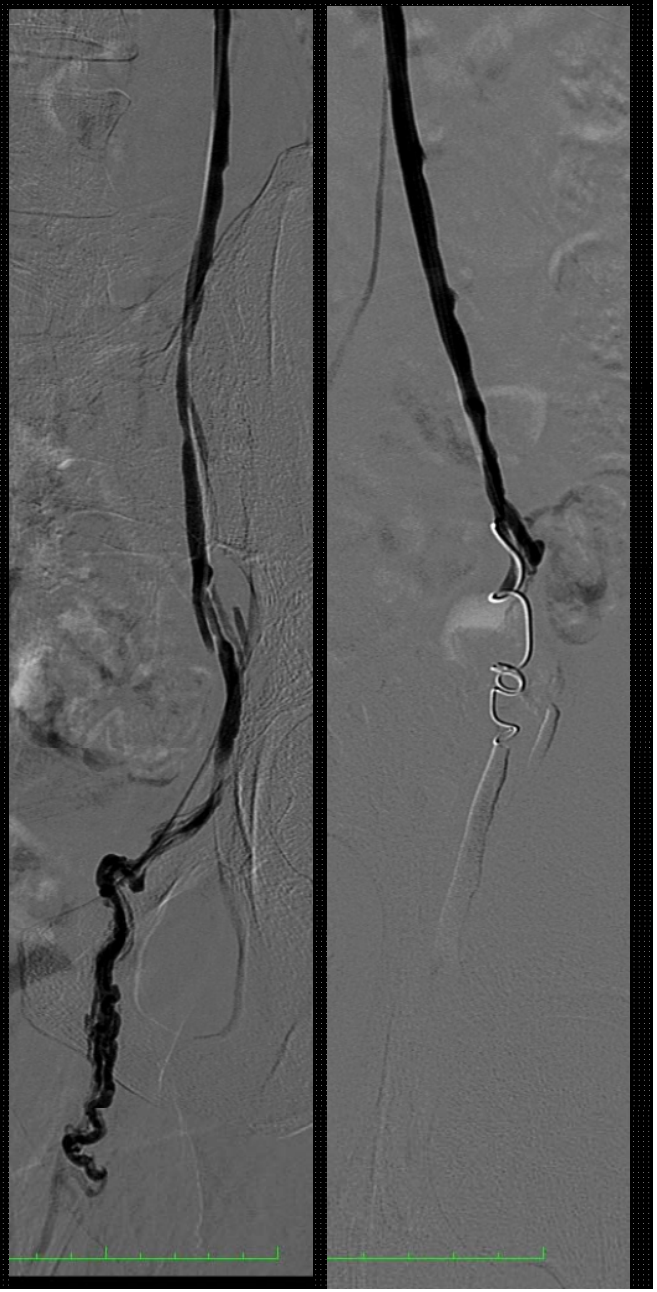
Varices pélvicas

VARICOCELE MASCULINO

- Dilatación vena espermática
- Habitualmente izquierdo (drenaje vena renal)
- Diagnóstico clínico y radiológico sencillo
- Tto si hay sintomatología:dolor, molestias, esterilidad secundaria,cosmética
  - Quirúrgico
  - Embolización







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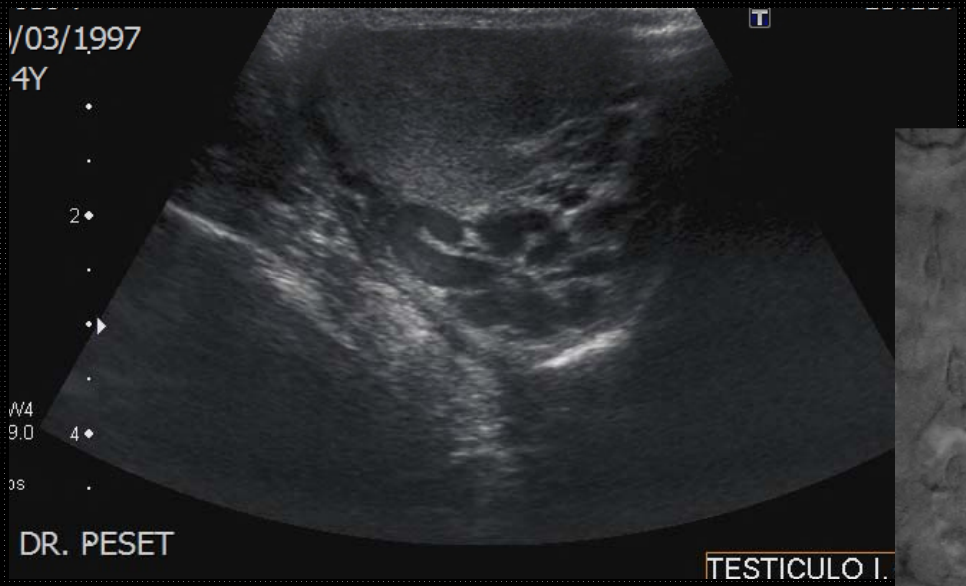

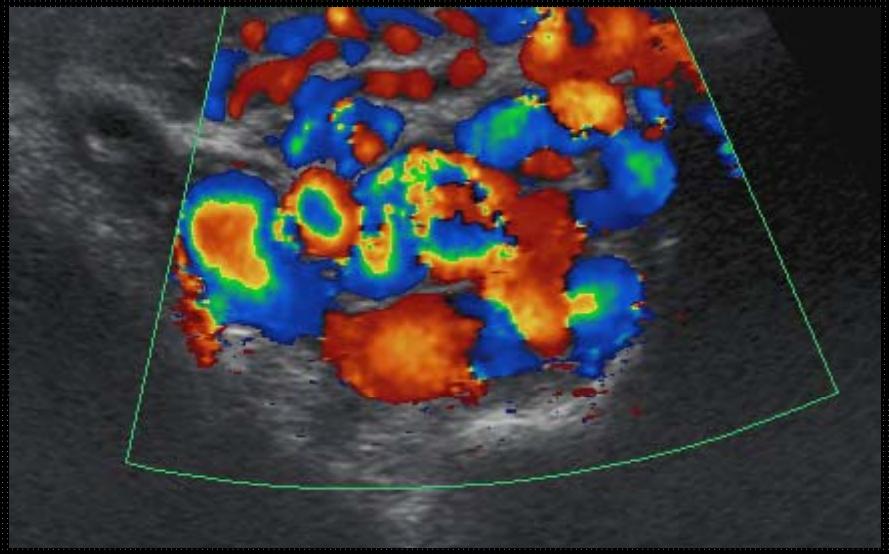

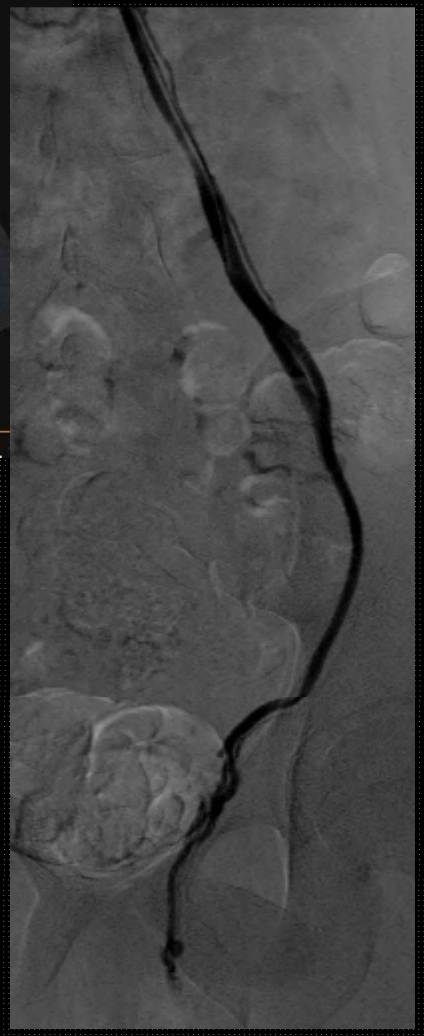

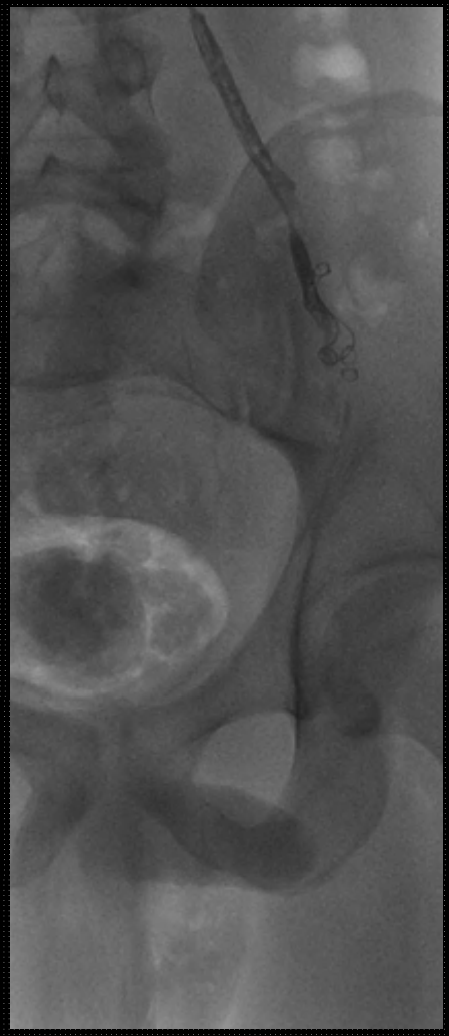

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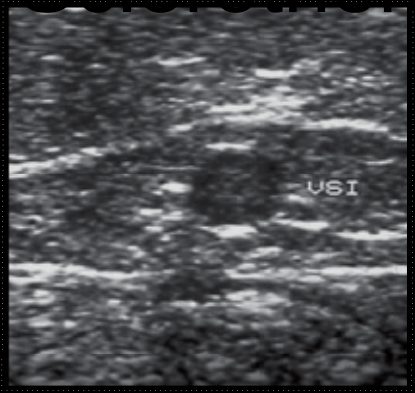
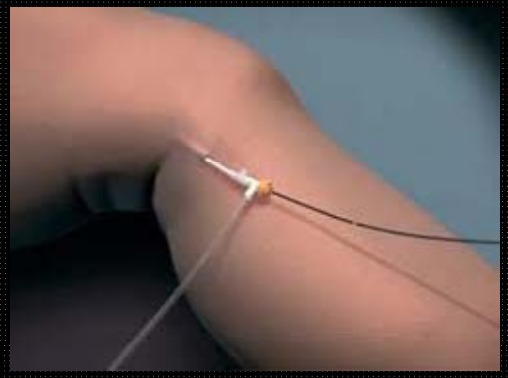


- Radiofrecuencia

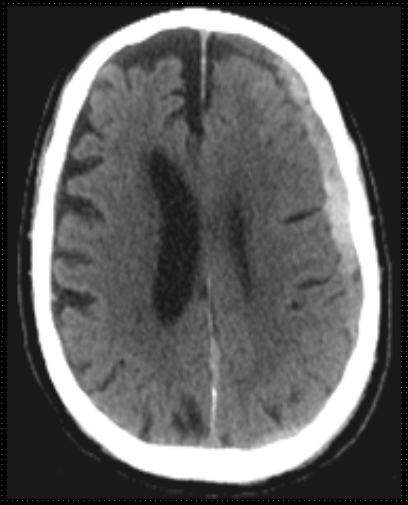


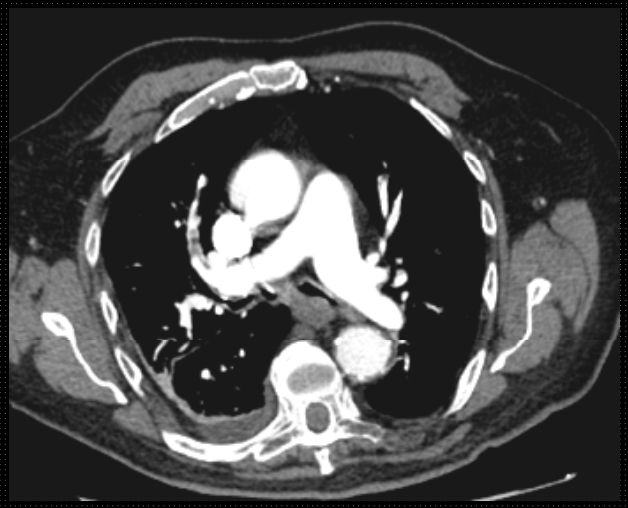
ULCERAS VENOSAS

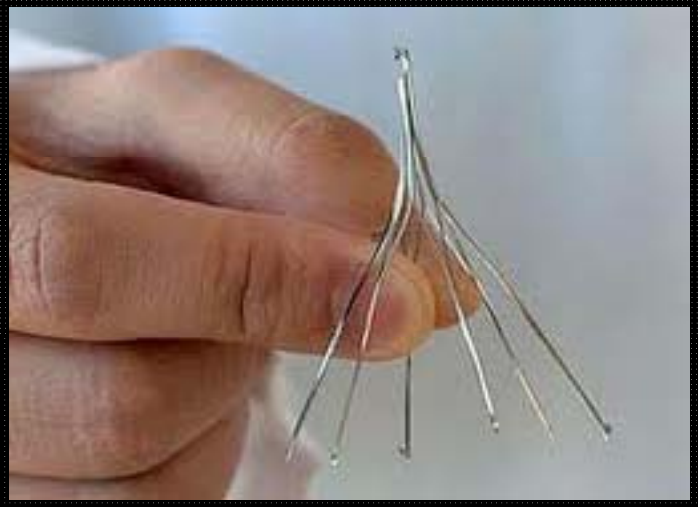
6 meses

9 meses

Varón de 85 años con hematoma subdural y TVP

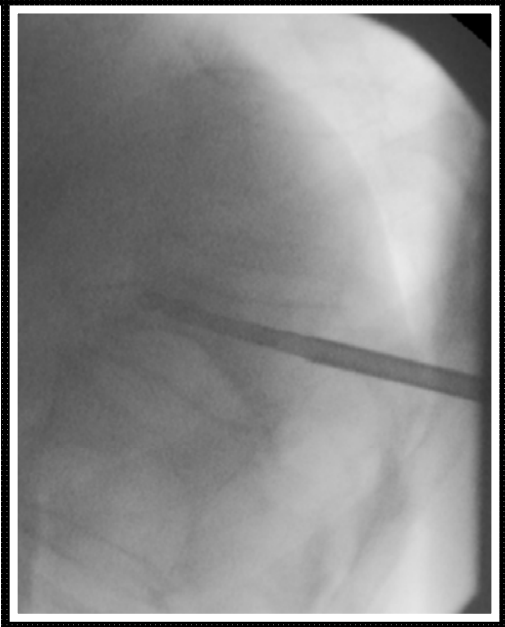
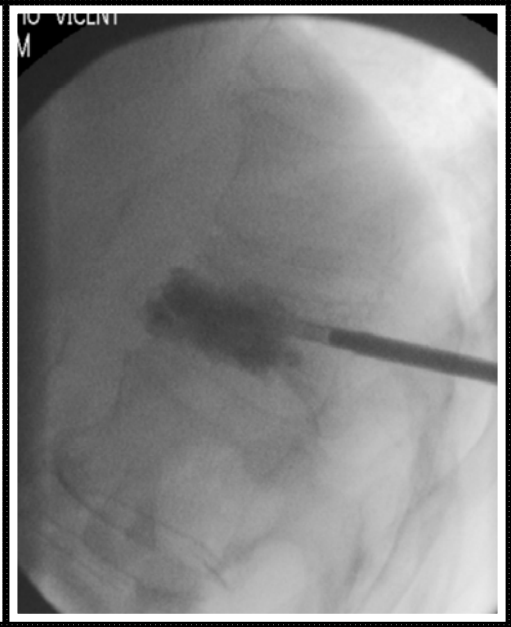




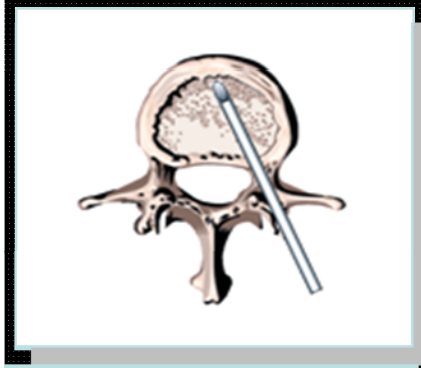


Intervenciones en lesiones musculoesqueléticas.

- **Tratamiento de las fracturas vertebrales sintomáticas con (vertebroplastias simples , cifoplastias, utilización de cementos biocompatibles…)**
- **Hemangiomas vertebrales sintomáticos**
- **Infiltraciones facetarias y de articulaciones sacroilíacas**
- **Tratamiento del dolor radicular**
- **Patología discal: nuevas técnicas de extracción percutánea del disco.**
- **Bloqueos de plexos.**


La vertebroplastia es el tratamiento de elección en las fracturas vertebrales sintomáticas a pear del tratamiento médico (osteoporotic, malignidad, etiología traumática)

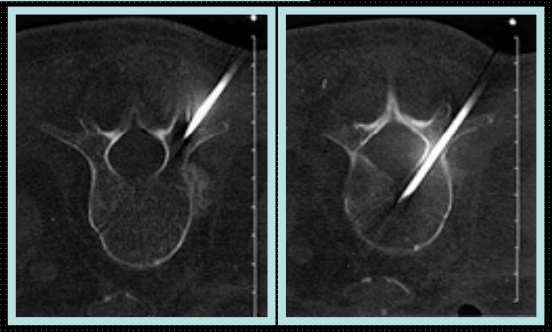


Abordaje transpedicular

Abordaje anterior

Abordaje posterolateral

Abordaje intercostovertebral



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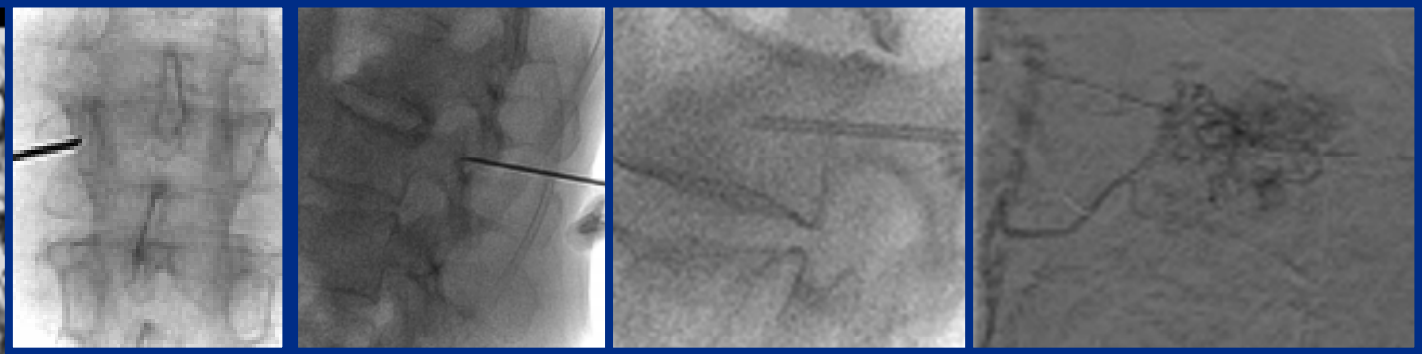

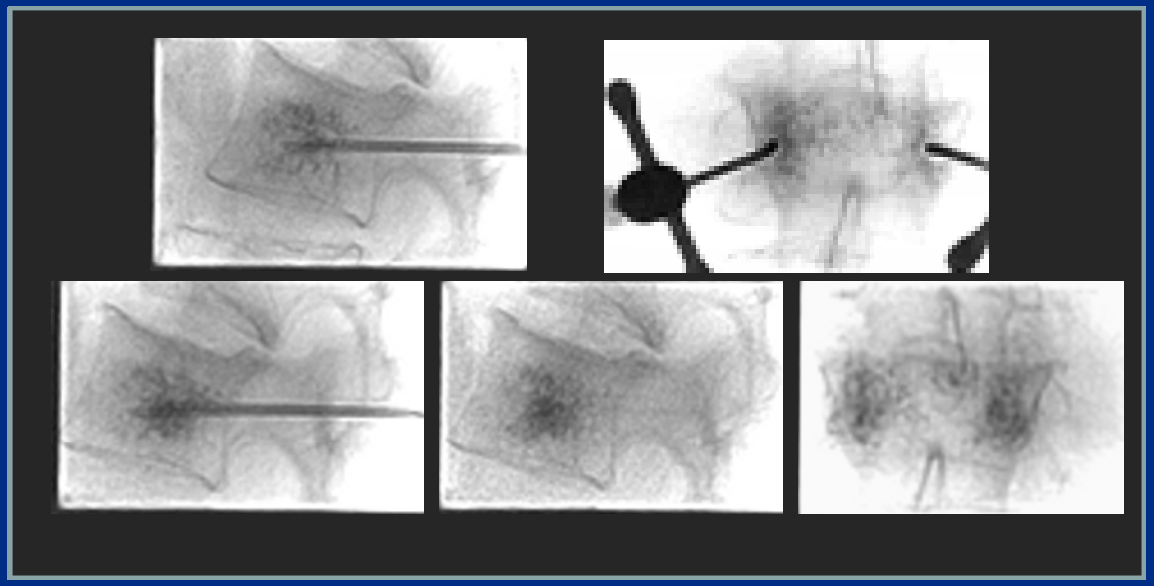

Osteoporos Int
DOI 10.1007/s00198-011-1730-y

ORIGINAL ARTICLE

Prospective comparison of the therapeutic effect of teriparatide with that of combined vertebroplasty with antiresorptive agents for the treatment of new-onset adjacent vertebral compression fracture after percutaneous vertebroplasty

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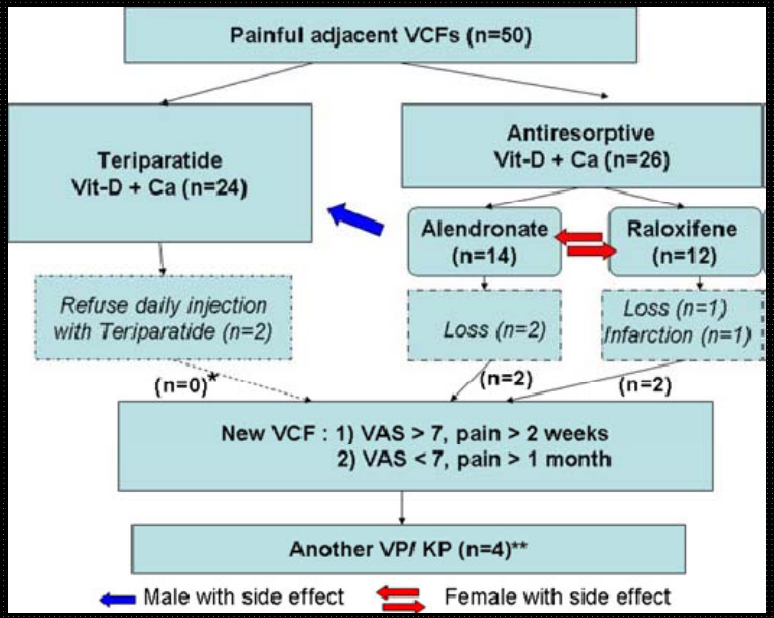
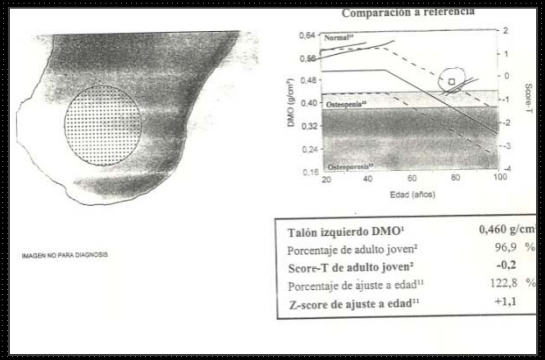
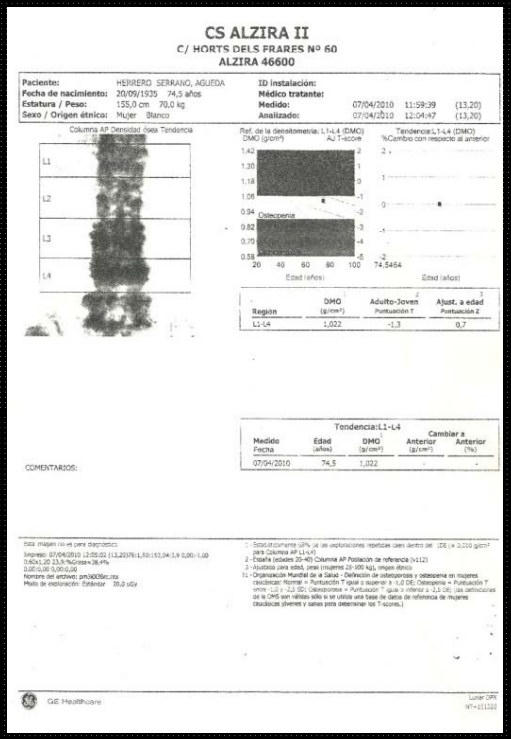


The therapeutic effect of teriparatide is better than that of vertebroplasty combined with an antiresorptive treatment and is a potentially useful therapy for new-onset adjacent compression fractures after vertebroplasty.





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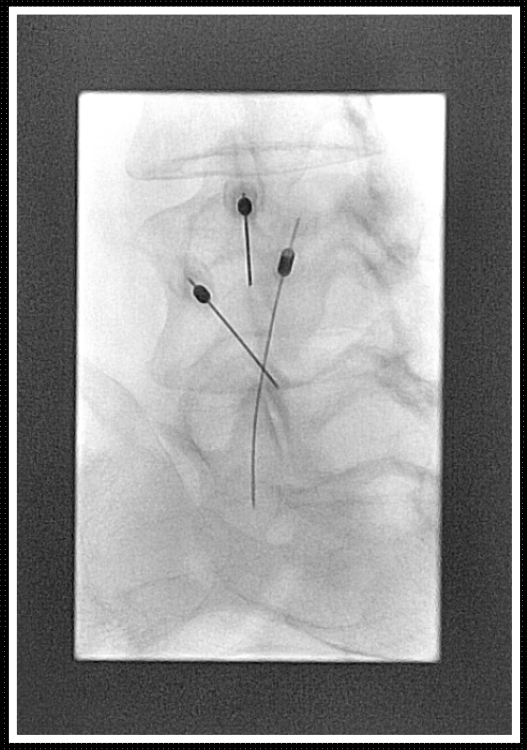

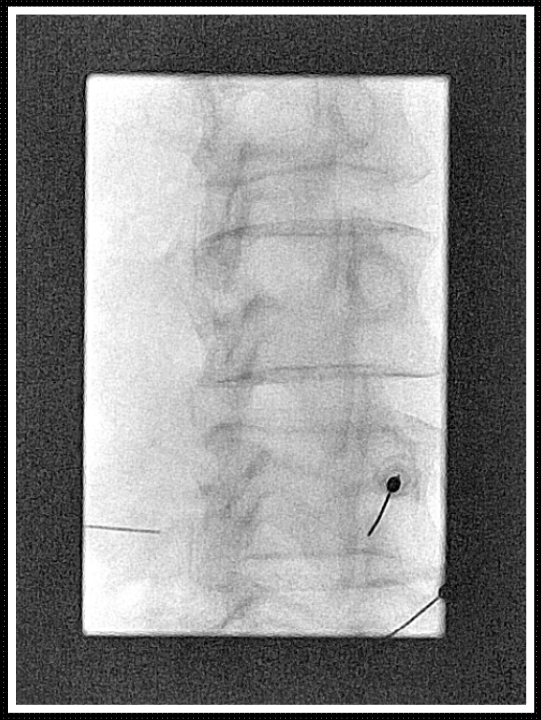

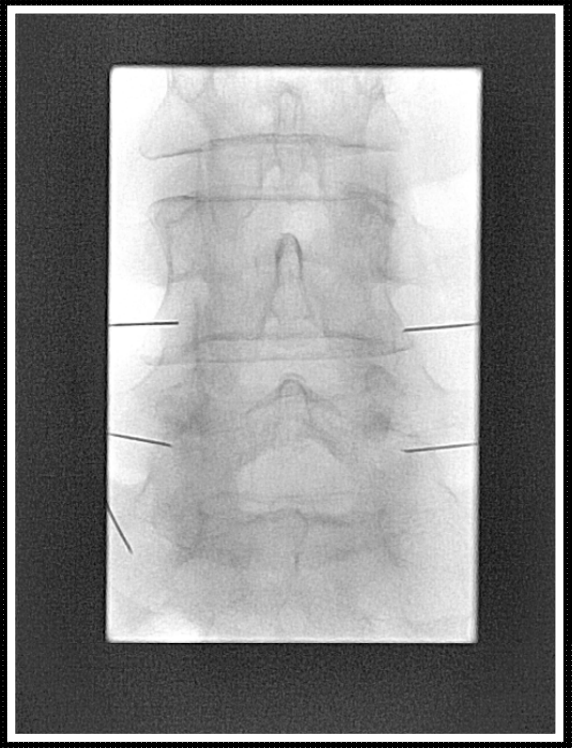

Infiltraciones facetarias y foraminales

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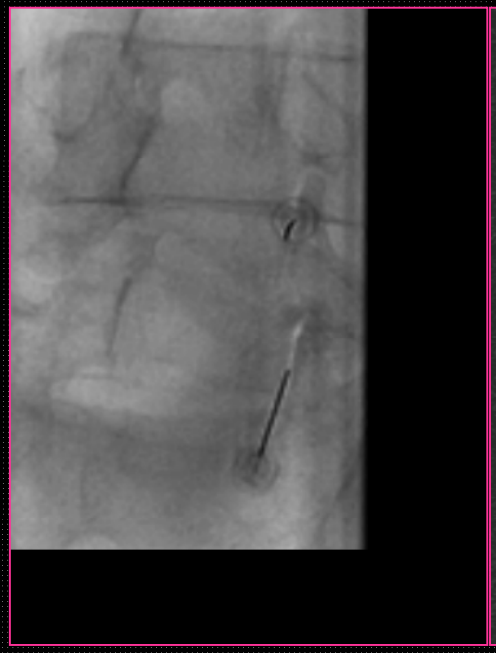
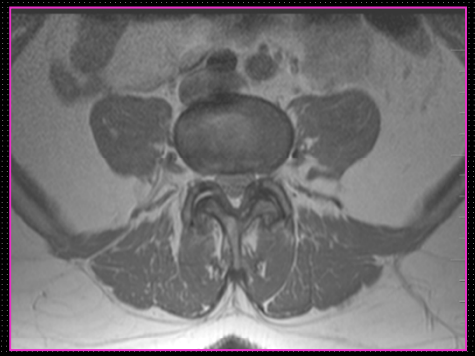
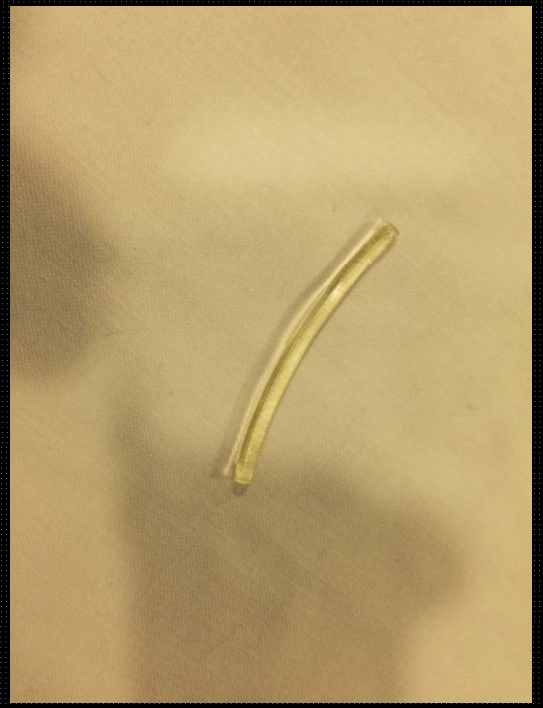
Rizolisis

- Radiofrecuencia
- Rizolisis química con alcohol.







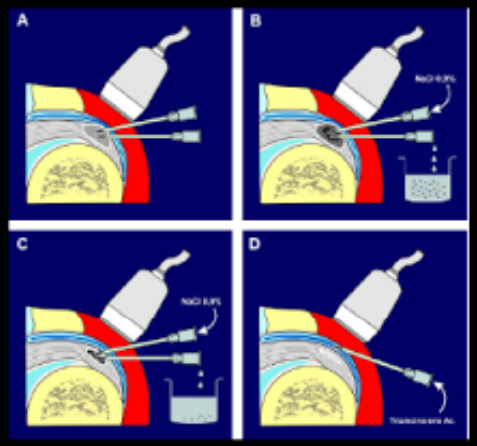
Tendinitis calcificante de hombro

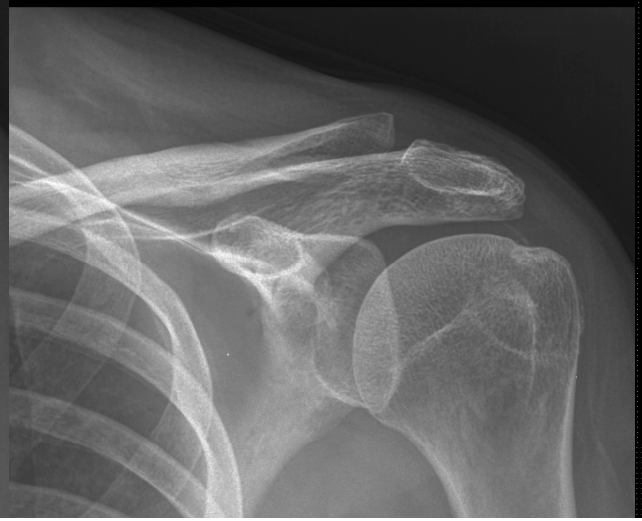
Causa común de dolor en el hombro
Incidencia entre 2,7 y 6,8%
Calcificación en los tendones del manguito de los rotadores con más frecuencia el supraespinoso
Inflamación química ->tendinitis->bursitis dolorosa
Algunos pacientes tienen dolor crónico o recurrente
1º: analgesia RHB y corticoides
Alternativa: pulverización con control us

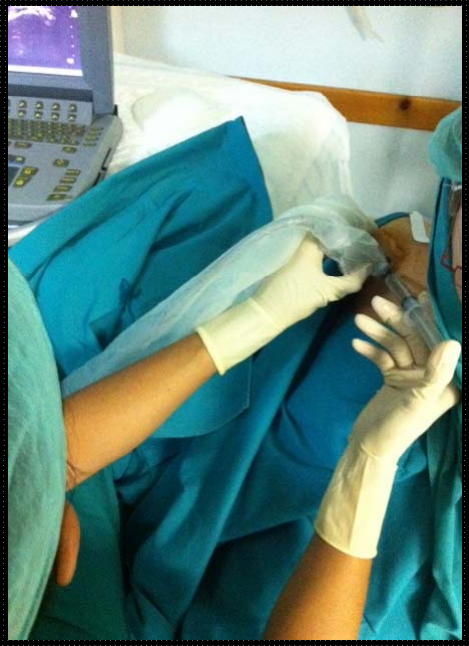
Con control ecográfico y abordaje anterior

Pulverización de calcificaciones:

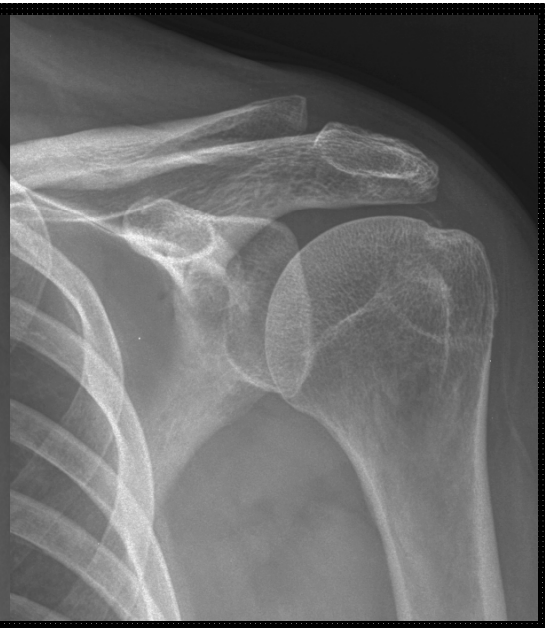
- Anestésico (lidocaína) + suero
- Suero fisiológico:
  - Erosiona gradualmente la calcificación, solución salina con fragmentos de Ca drenan a través de la aguja
- Trigón (Triamcinolona)

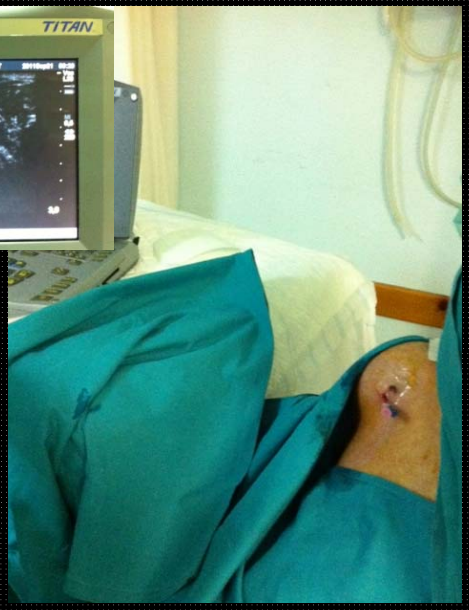


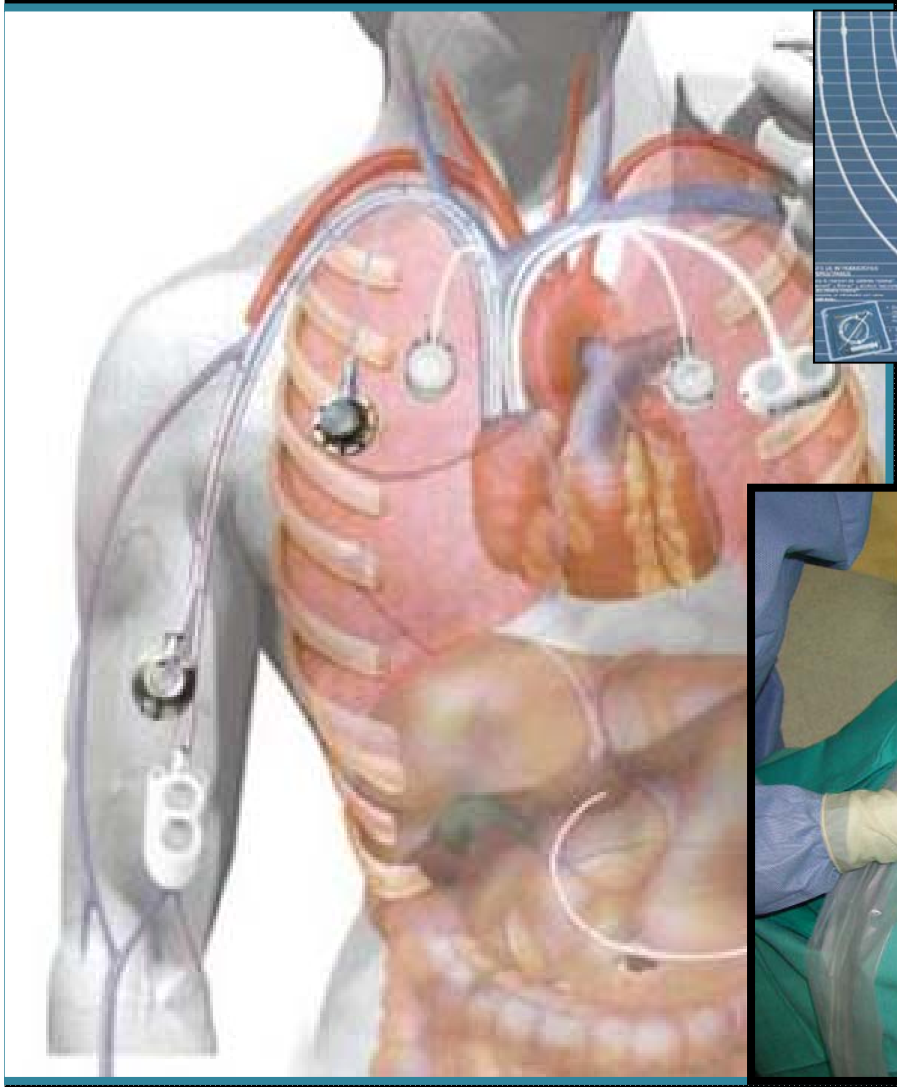


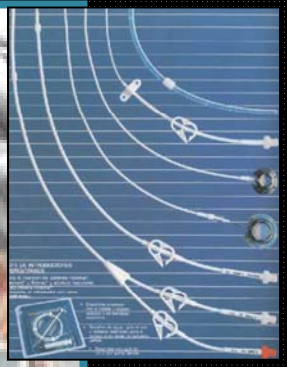


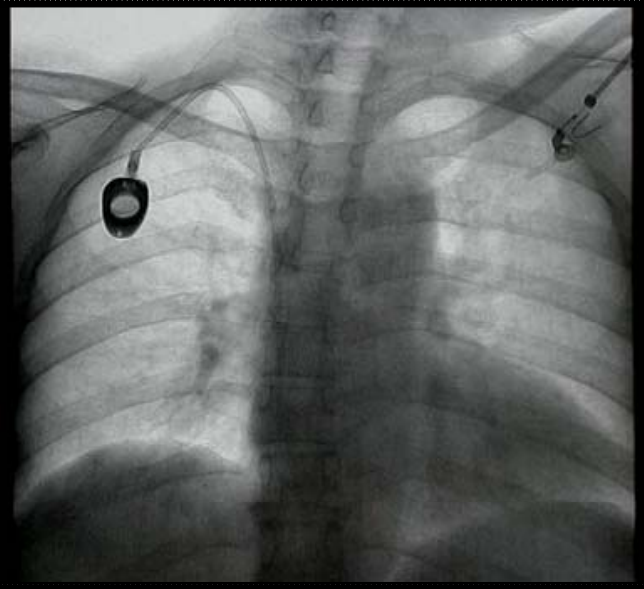
Tratamiento de la tendinitis calcificante de hombro











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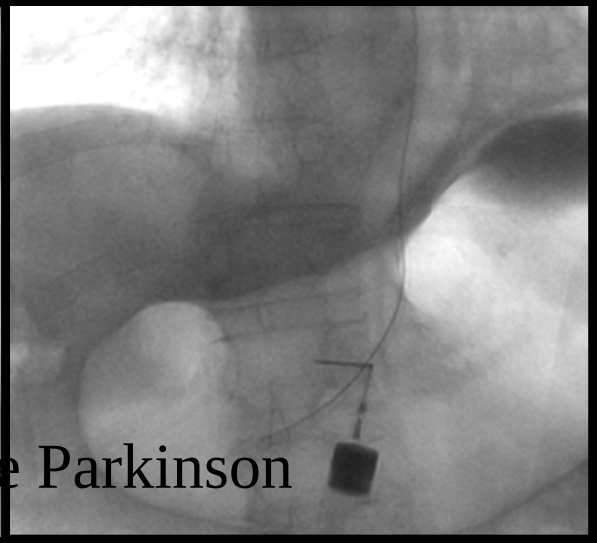
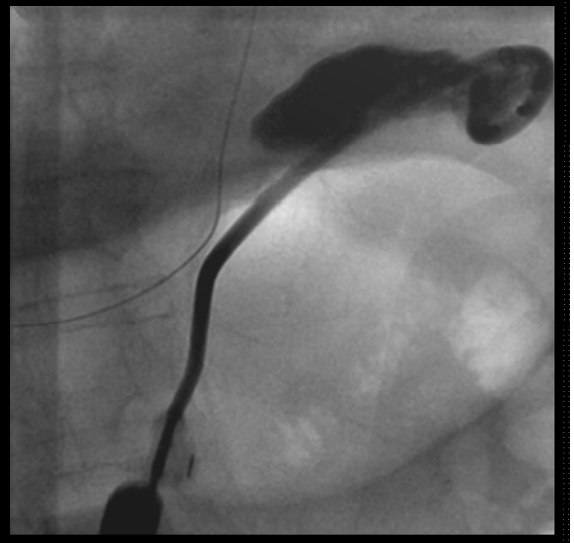
Enfermedad de Parkinson



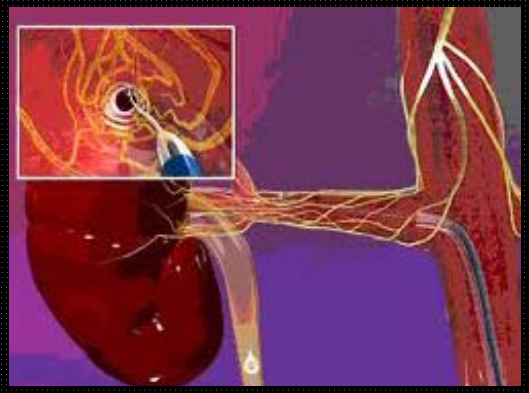


Gastrostomía percutánea

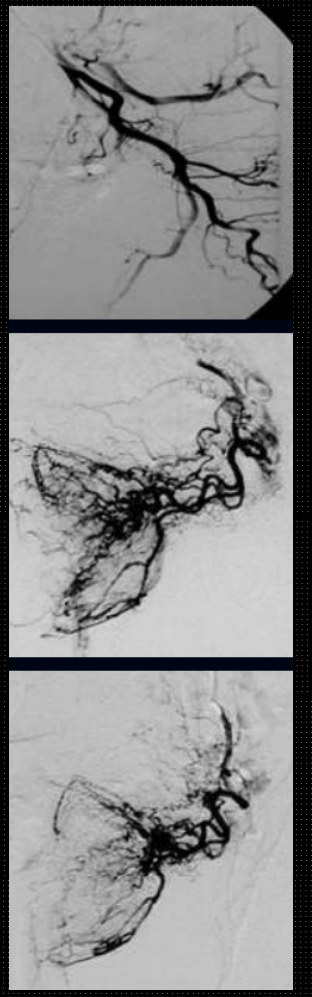
carcinoma epidermoide

NOVEDADES:

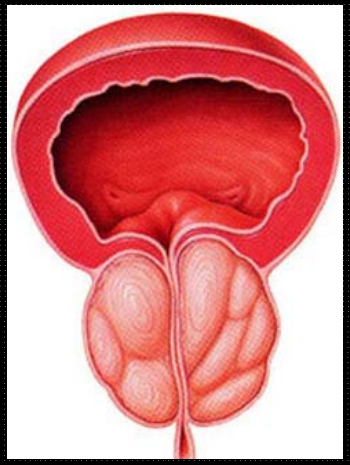
- Renal denervación: en el tratamiento de la hipertensión refractaria al tratamiento

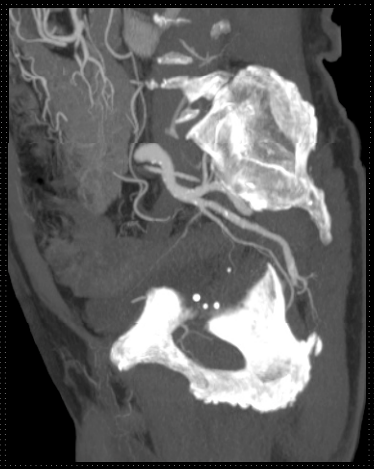


NOVEDADES:



- Embolización de las arterias prostáticas en el tratamiento de la hiperplasia benigna de próstata





NOVEDADES:

Tratamiento de la trombosis venosa profunda y prevención del síndrome postflebítico

AMERICAN COLLEGE OF CHEST PHYSICIANS **New 2008 ACCP DVT Guidelines Just Released**

1.9 Catheter-Directed Thrombolysis for Acute DVT

1.9.1. In selected patients with extensive acute proximal DVT (*eg*, iliofemoral DVT, symptoms for < 14 days, good functional status, life expectancy of ≥ 1 year) who have a low risk of bleeding, we suggest that catheter-directed thrombolysis may be used to reduce acute symptoms and postthrombotic morbidity if appropriate expertise and resources are available (Grade 2B).

1.9.2. After successful catheter-directed thrombolysis in patients with acute DVT, we suggest correction of underlying venous lesions using balloon angioplasty and stents (Grade 2C).

1.9.3. We suggest pharmacomechanical thrombolysis (*eg*, with inclusion of thrombus fragmentation and/or aspiration) in preference to catheter-directed thrombolysis alone to shorten treatment time if appropriate expertise and resources are available (Grade 2C).

1.9.4. After successful catheter-directed thrombolysis in patients with acute DVT, we recommend the same intensity and duration of anticoagulant therapy as for comparable patients who do not undergo catheter-directed thrombolysis (Grade 1C).

"We suggest pharmacomechanical thrombolysis..."

...in preference to CDT alone..."

- 2008 ACCP DVT Guidelines

As published in...
CHEST
The Official Publication of The American College of Chest Physicians

Executive Summary: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition)

Jack Hirsh, Gordon Guyatt, Gregory W. Albers, Robert Harrington and Holger J. Schünemann

Chest 2008;133;71-109
DOI 10.1378/chest.08-0693

New Device Treats Deep Vein Thrombosis

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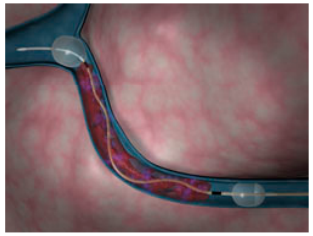
NASCAR driver Byran Vickers had it. While embedded with Army troops covering the war in Iraq, NBC journalist David Bloom lost his life because of it. It's called deep vein thrombosis (DVT), a condition in which a massive clot develops in the legs of air travelers, hospital patients or others who don't move for long periods of time. When the clot breaks off, it can travel to the lungs, resulting in a pulmonary embolism that can severely reduce blood flow to the lungs and can be fatal. Symptoms of DVT may include leg pain, swelling, discoloration, and warmth to the touch. Diagnosis of the condition is frequently performed with ultrasound.

Developed in the 1950s, traditional treatment for DVT includes the use of blood-thinning medication and compression stockings. The medication prevents further development of clots, but doesn't address the existing clot which can take weeks or months to resolve. There is a small but persistent risk of pulmonary embolism until the clot has resolved.

The presence of a clot in the veins of the legs can cause permanent damage to the valves in these veins. If these valves stop working, a chronic, painful swelling of the legs can develop, called *post-phlebitic syndrome*. This syndrome occurs in up to 50% of patients with DVT within one year.

At French Hospital Medical Center, (FHMC), a new device called the Trellis Peripheral Infusion System is being used to treat lower extremity DVT. **FHMC is the only hospital from Monterey to Ventura to offer its patients this technology. The catheter-based procedure is usually completed in about an hour. The procedure is done under IV sedation.**



"The Trellis device is an infusion catheter with an inflatable balloon on both ends," explains Diagnostic and Interventional Radiologist Timothy Auran, MD. "We place the device into the affected blood vessel and inflate both balloons. We then infuse a clot dissolving medicine to break down the clot. The liquefied clot is then aspirated out of the catheter at the end of the procedure. The medicine works in less than ten minutes and only affects the thrombosed vein."

The Trellis device not only prevents pulmonary embolism, but helps prevent the development of post-phlebitic syndrome. The patient goes home within 24 hours of the procedure and is usually able to return to normal activity within one to two days. The Trellis device is an addition to a range of DVT treatment options that have already been available at French Hospital, including inferior vena cava filters, suction thrombectomy devices, and standard thrombolysis infusion catheters.

"The key is identifying those people who are at risk," says Dr. Auran. "We need to treat patients with Trellis within two weeks after the onset of symptoms. The sooner they get to their physician, the better chance we can treat this successfully."

GRACIAS