

症例：50歳台男性

【主訴】

腹痛

【経過】

13:30分頃から下腹部痛出現。その後心窩部に疼痛部位が移動。嘔吐一回。
17時頃当院受診。

【既往】

上腸間膜静脈血栓症

虫垂炎（手術後）

【生活歴】

タバコ10本/日を10年

缶ビール350ml×2+日本酒3合 /日

症例：50歳台男性

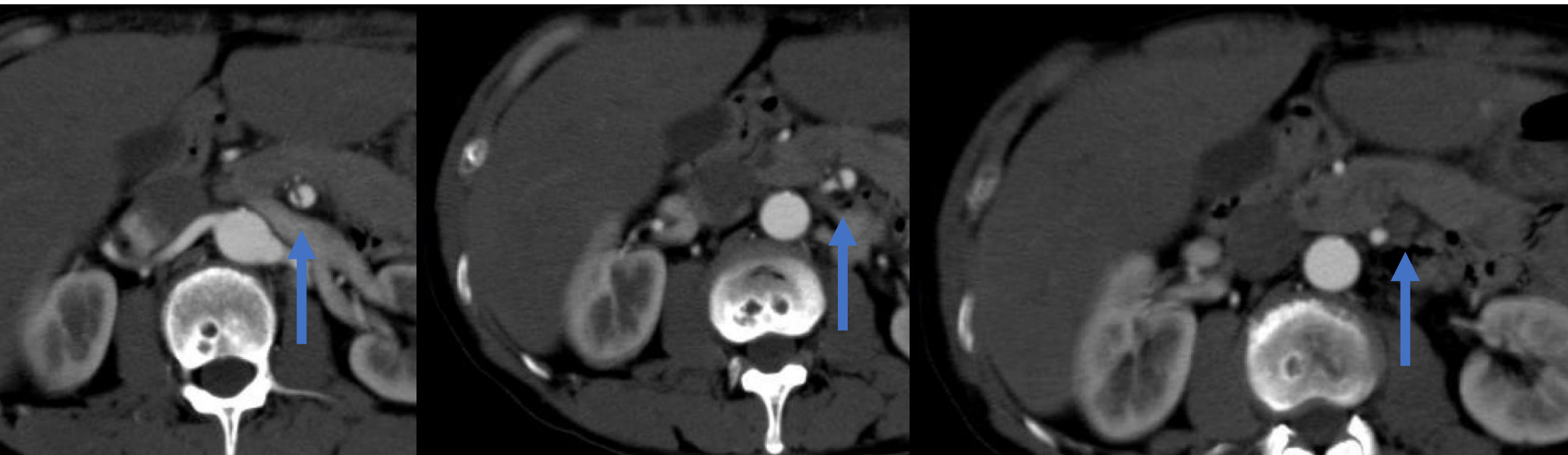
【L/D】

WBC 7000/ μ l RBC 4350000/ μ l Plt 151000/ μ l

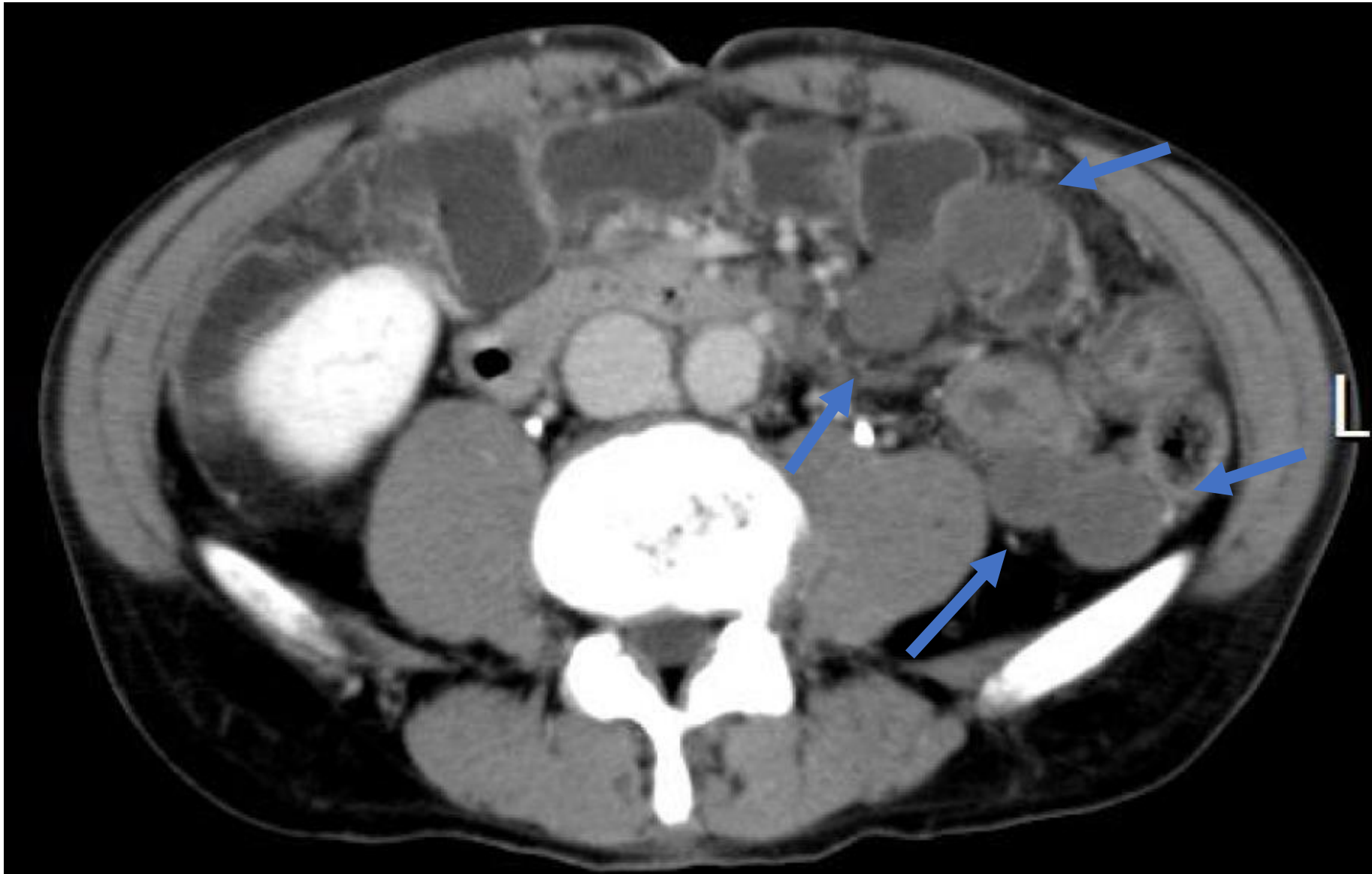
CPR < 0.1mg/dl CK 94U/L Lac 1.1mmol/L

Na 139mEq/l K 3.3mEq/l Cl 110mEq/l B.E 0.3 PH 7.423

Dynamic CT(動脈相、平衡相)



上腸間膜動脈に解離
IPDA分岐部より末梢の真腔は閉塞
さらに抹消のSMAは開存



造影不良な小腸がみられ虚血の疑い

診断

孤立性上腸間膜動脈解離

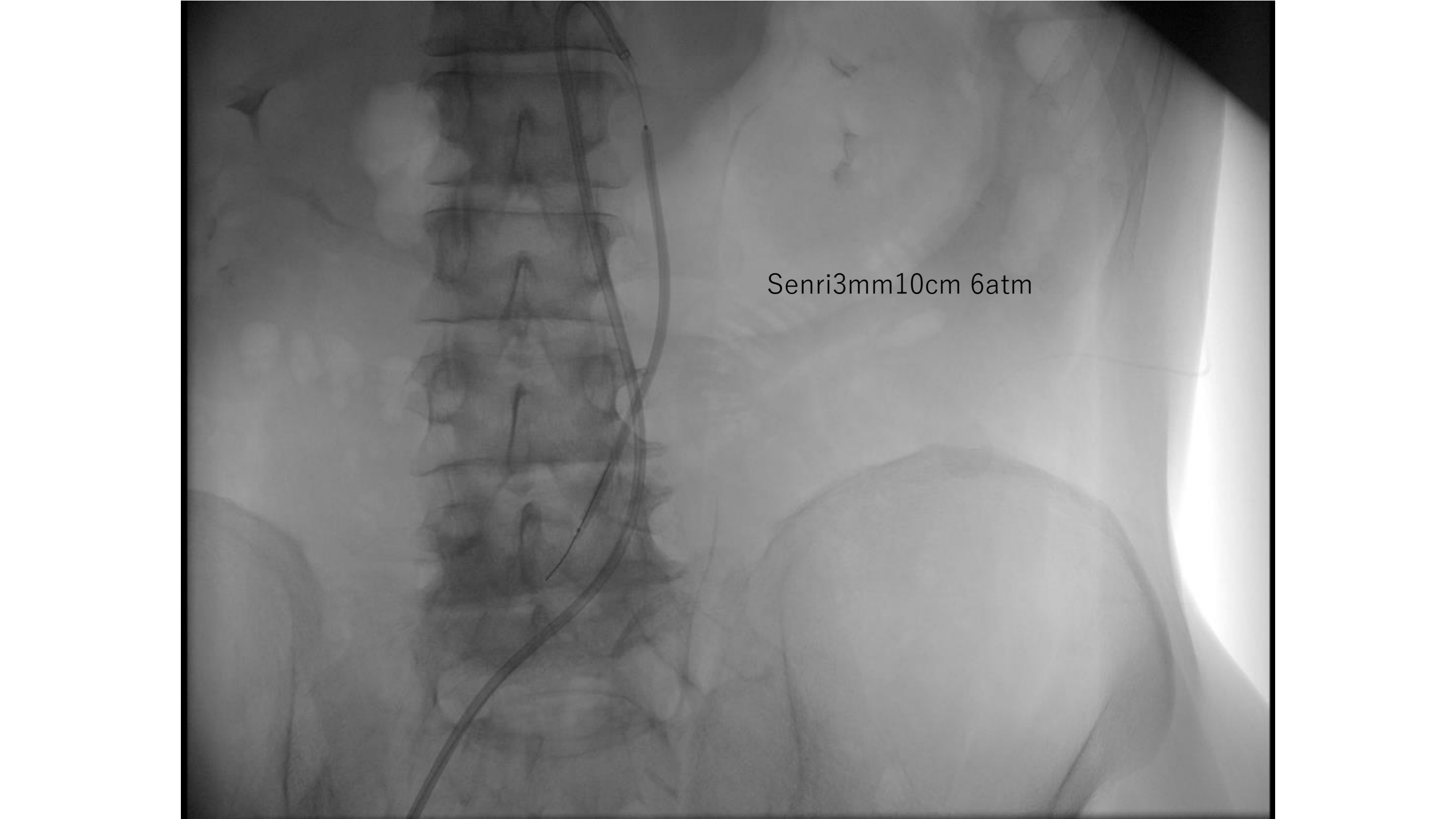
一般消化器外科医、心臓血管外科医

「腸管虚血はあるが壊死までは至っていない状況で手術適応なし。外科としては腸管壊死が疑われた段階で開腹、腸切除に行くくらい。IVRでどうにかならないですか？」





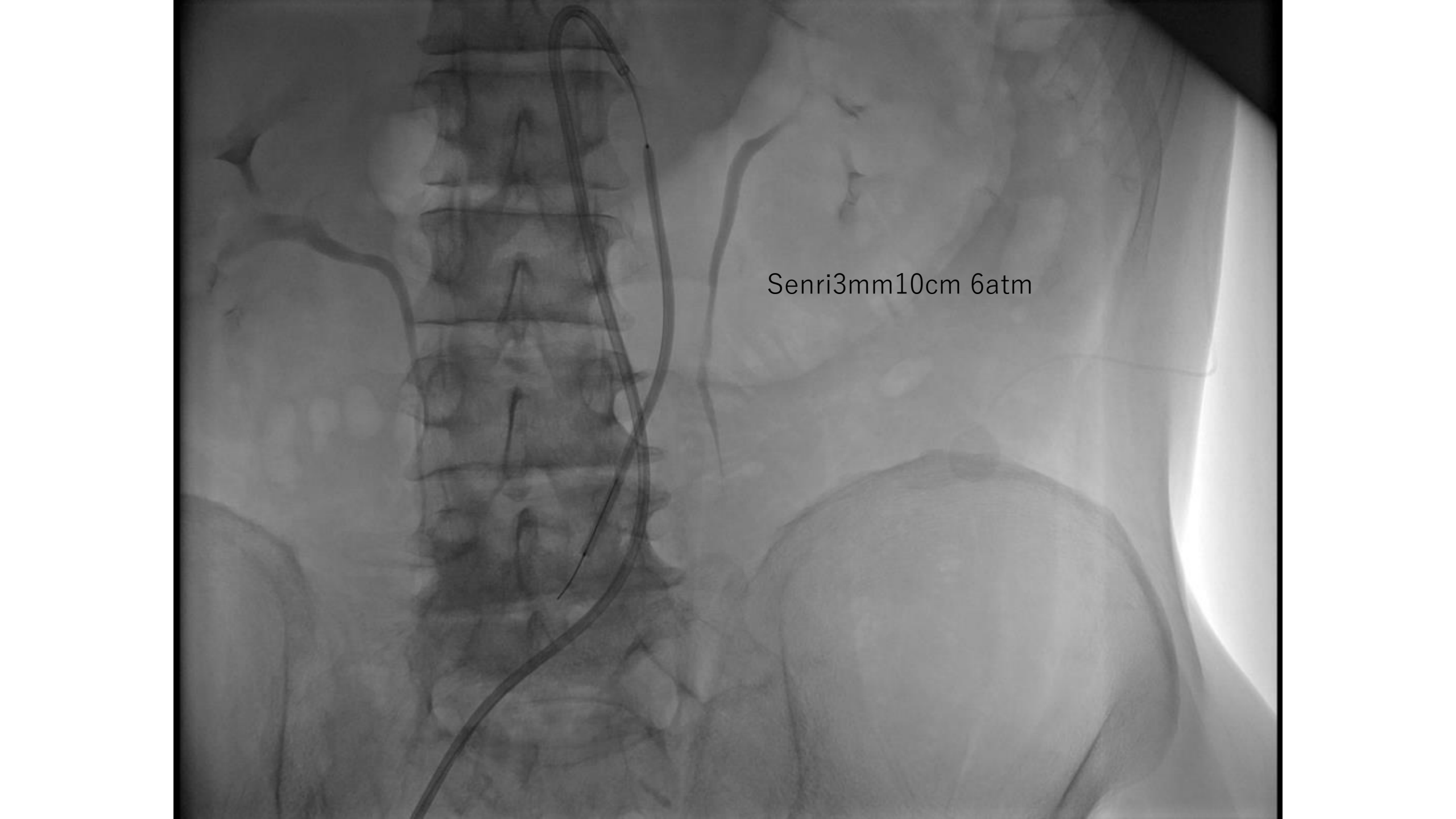




A lateral X-ray of the spine showing a catheter or tube inserted into the spinal canal. The vertebrae are visible, and the catheter follows the curvature of the spine. The text 'Senri3mm10cm 6atm' is overlaid on the image.

Senri3mm10cm 6atm





A fluoroscopic image showing a lumbar puncture procedure. A thin needle is visible, inserted into the lower back, specifically between the lumbar vertebrae. The needle is positioned at the L3-L4 level. The surrounding soft tissue and bony structures of the spine are visible in grayscale. The text 'Senri3mm10cm 6atm' is overlaid on the image.

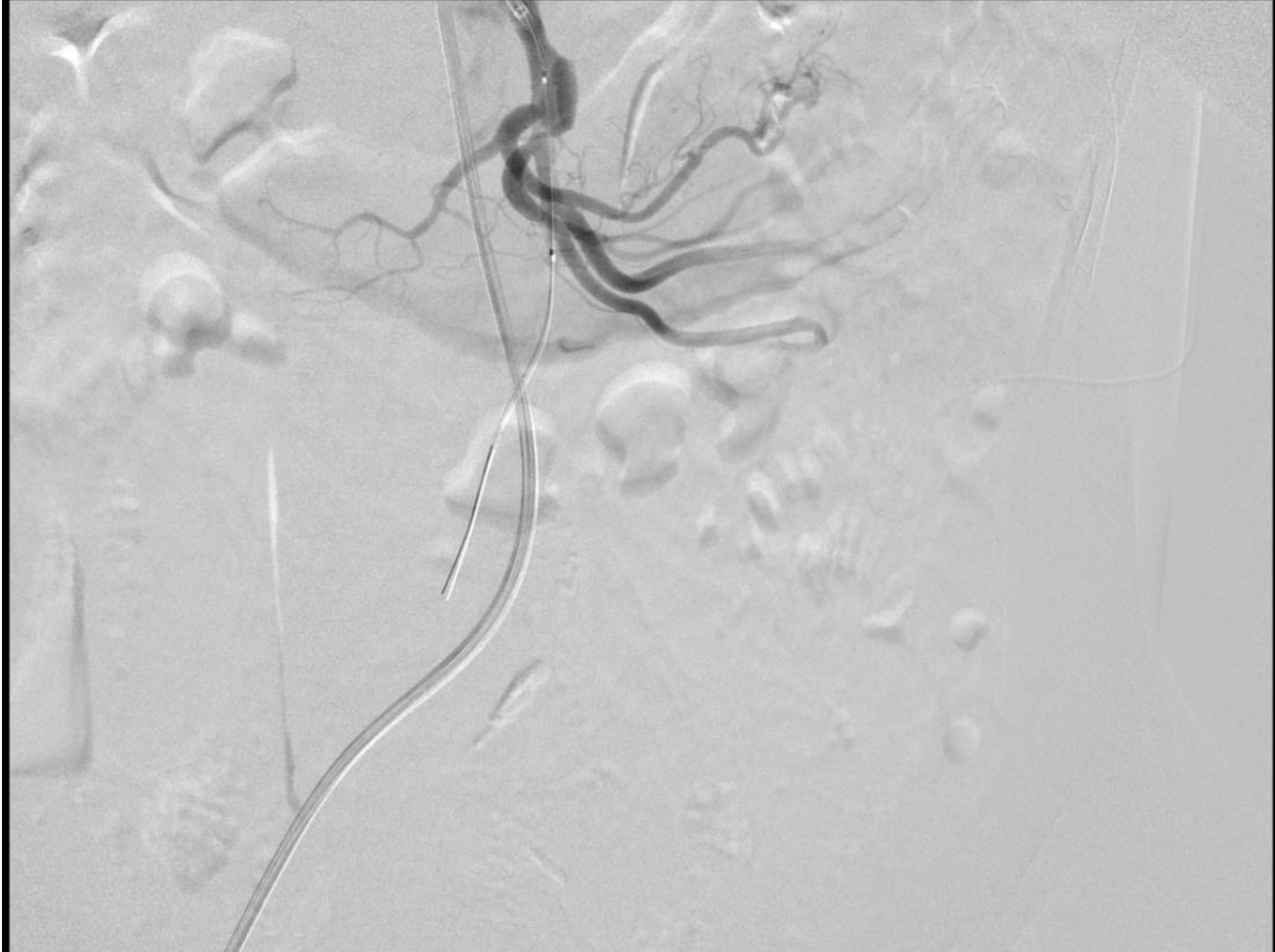
Senri3mm10cm 6atm

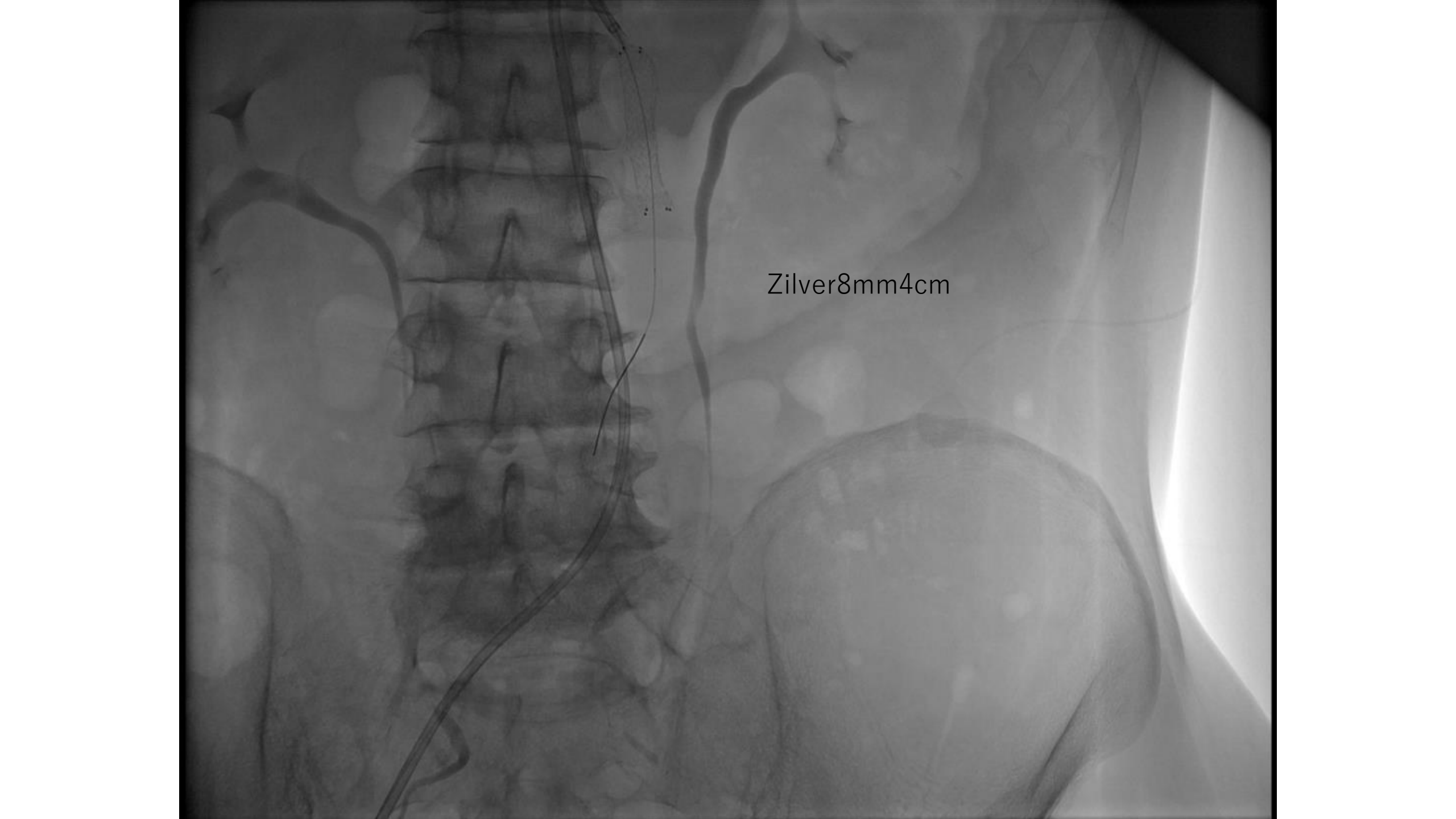




A fluoroscopic image showing a lumbar puncture procedure. A Saver catheter is inserted into the lumbar space, with its tip positioned near the L5/S1 level. The catheter is labeled with its specifications: 6mm, 4cm, and 6atm. The image shows the bony structures of the spine and the surrounding soft tissue.

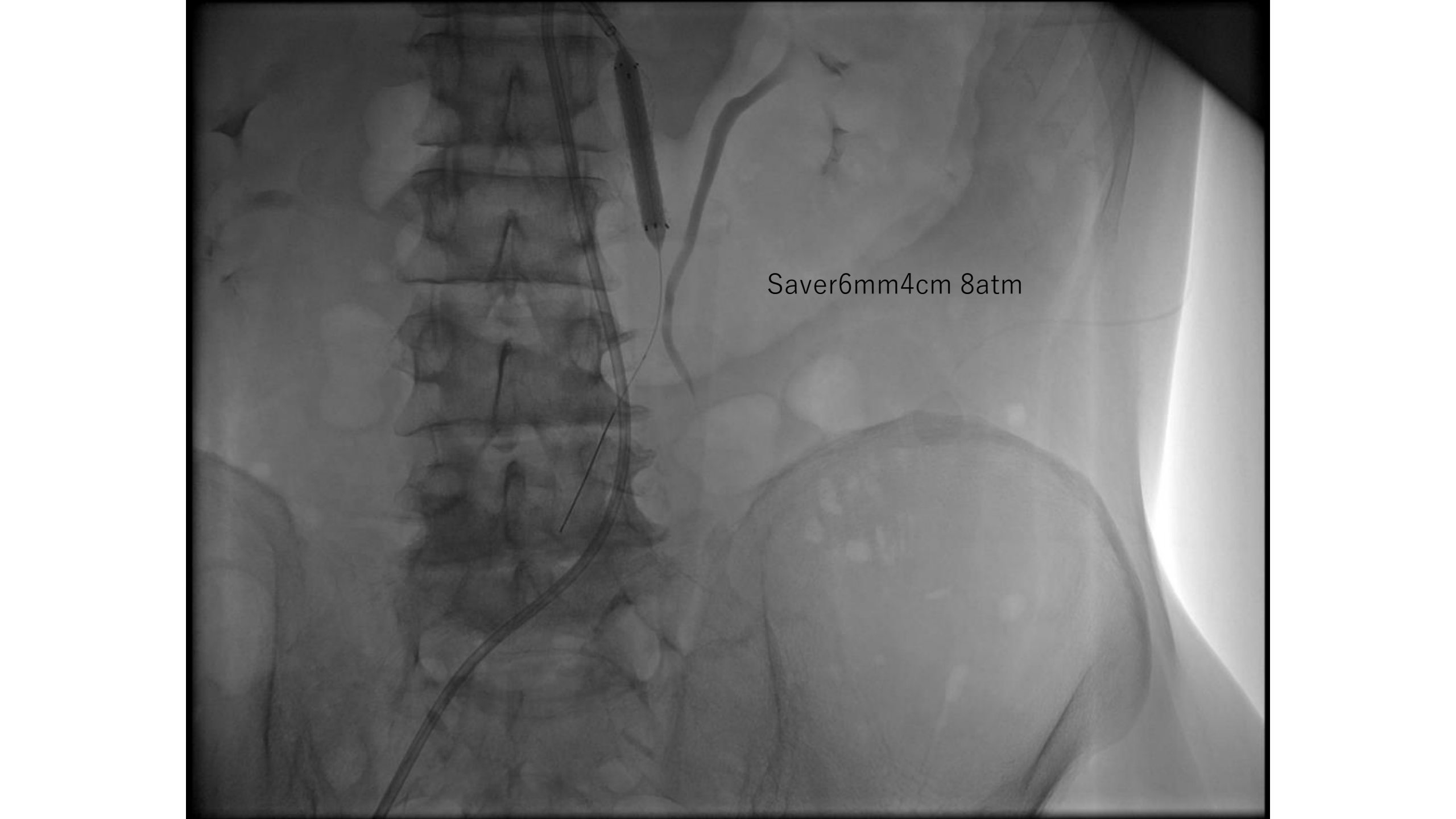
Saver 6mm4cm 6atm





This is a lateral X-ray of the spine. A catheter is visible, running vertically along the left side of the vertebral column. A large, rounded, radiopaque mass is located in the lower right portion of the image, adjacent to the spine. The text 'Zilver8mm4cm' is overlaid on the image.

Zilver8mm4cm

A fluoroscopic image showing a lumbar puncture procedure. A needle is visible, inserted into the lower back, with a catheter or guidewire extending downwards. The spine is clearly visible in the background. The text "Saver6mm4cm 8atm" is overlaid on the image.

Saver6mm4cm 8atm

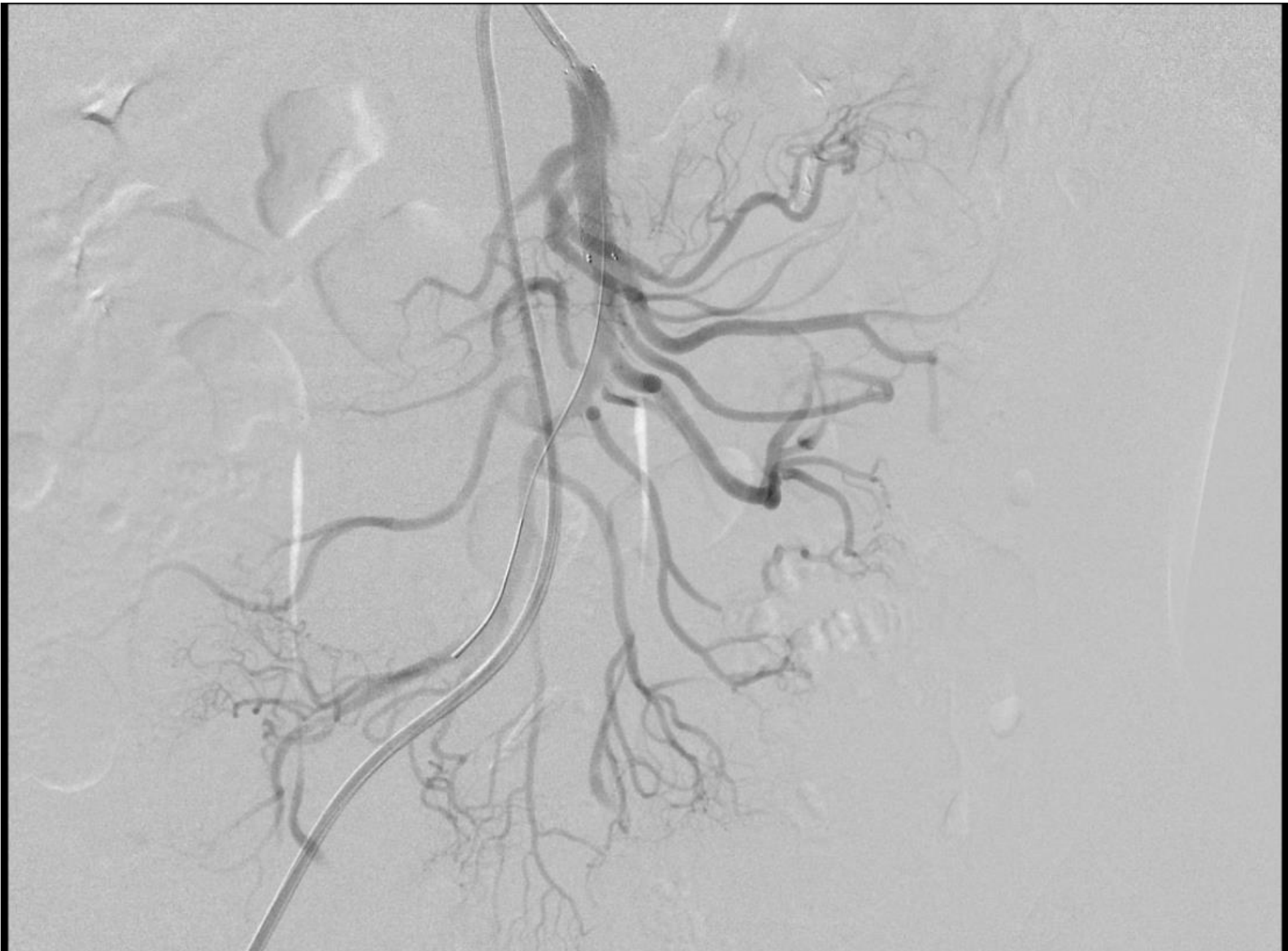
A lateral X-ray of the spine showing a Saver catheter system. The catheter is positioned along the spine, and the text "Saver6mm4cm 1atm以下" is overlaid on the image.

Saver6mm4cm 1atm以下



A lateral X-ray of the spine, likely in the thoracic or lumbar region, showing a minimally invasive surgical approach. A tubular retractor system is visible, consisting of a series of connected tubes that provide access to the vertebral canal or disc space. The vertebrae are clearly visible, and the soft tissue structures are less distinct. The text "Saver6mm4cm 1atm以下" is overlaid on the image, indicating the size of the tubular retractor and the pressure level used during the procedure.

Saver6mm4cm 1atm以下



腹痛はIVR直後に速やかに消失



一週間の経過観察入院ののち退院となった

孤発性上腸間膜動脈解離

【概念】

大動脈解離を伴わない上腸間膜動脈の解離

【頻度】

まれ 中年男性に好発

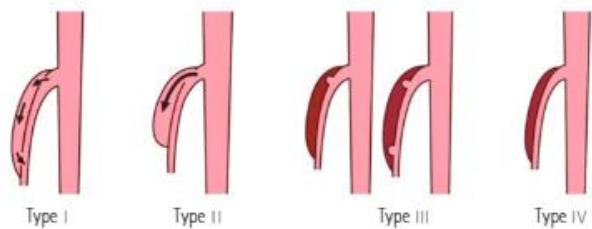
【病因】

動脈硬化、高血圧、外傷、妊娠、中膜壊死、Marfan症候群などの弾性繊維異常など

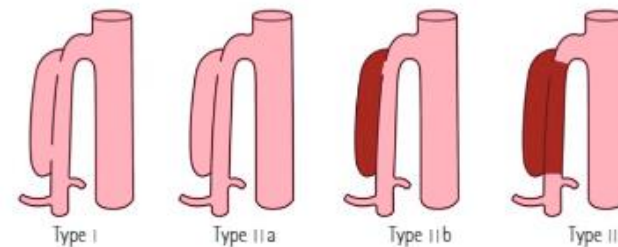
【死亡率】

0.5%

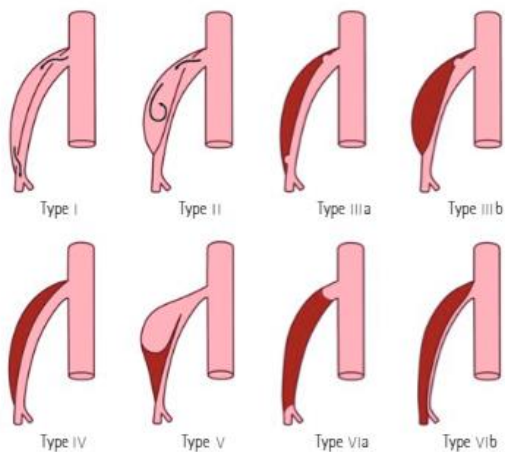
孤発性上腸間膜動脈解離の分類



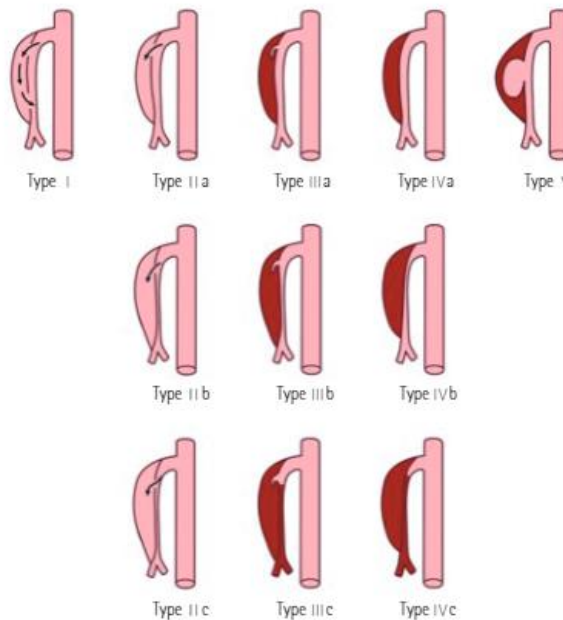
Sakamotoの分類



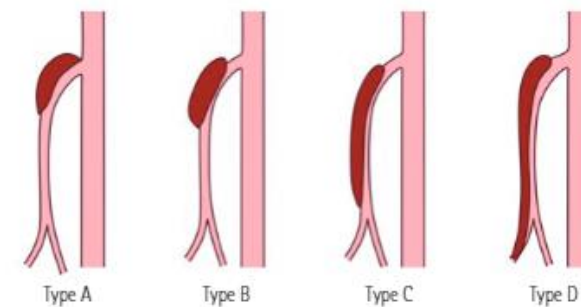
Yunの分類



Zerbibの分類

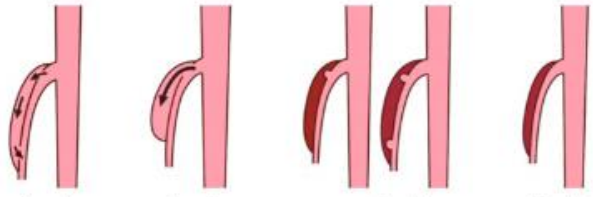


Liの分類

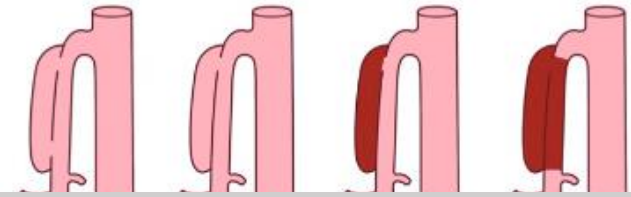


Luanの分類

孤発性上腸間膜動脈解離の分類

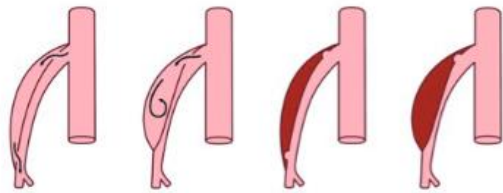


Typ

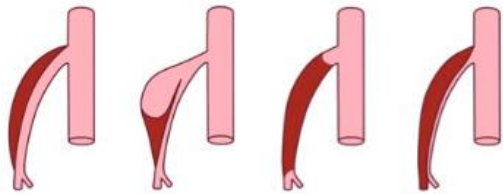


どの分類を使うべきか定まっていない

Type I Type IIa Type IIIa Type IVa Type V

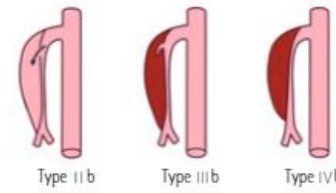


Type I Type II Type IIIa Type IIIb

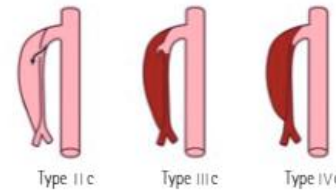


Type IV Type V Type VIa Type VIb

Zerbibの分類

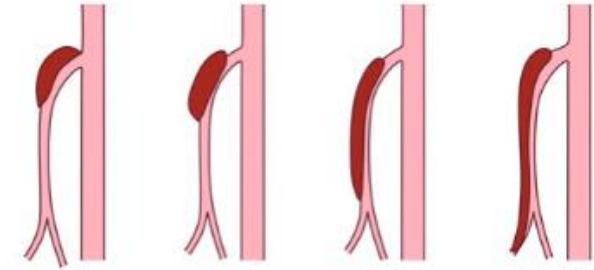


Type IIb Type IIIb Type IVb



Type IIc Type IIIc Type IVc

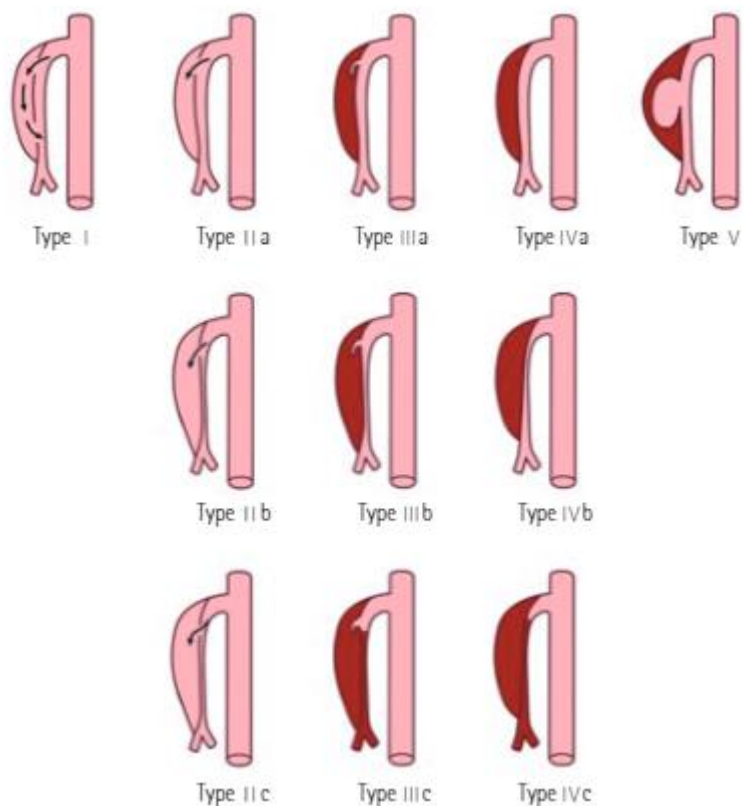
Liの分類



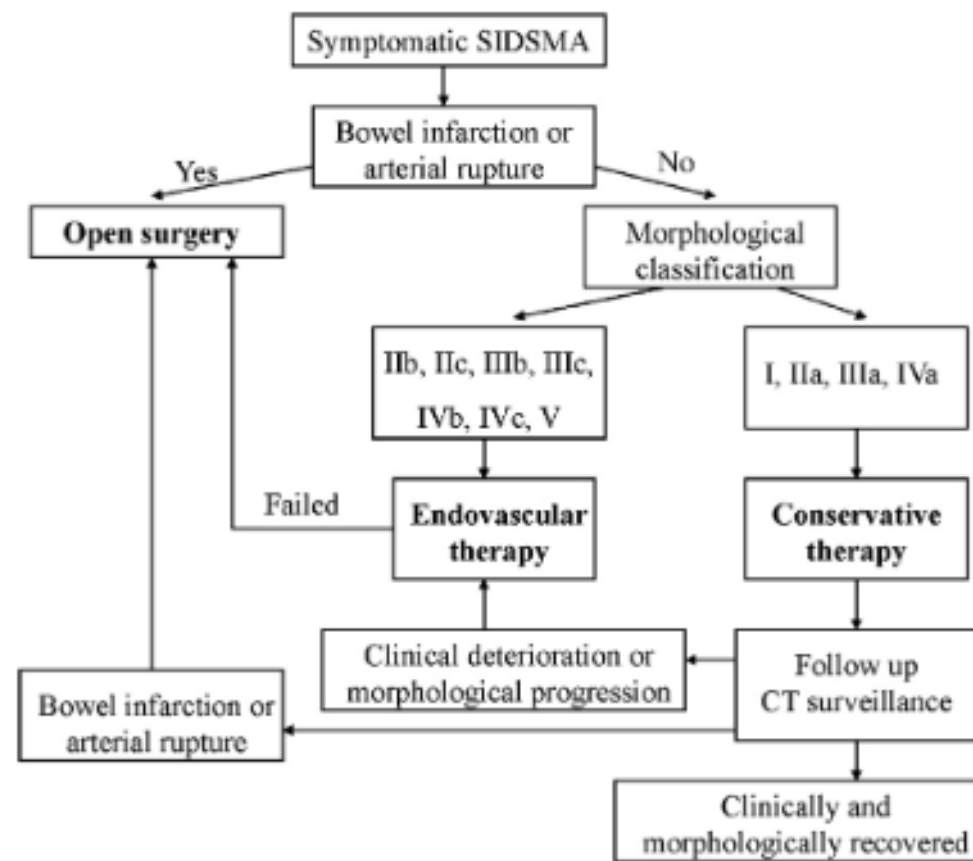
Type A Type B Type C Type D

Luanの分類

孤発性上腸間膜動脈解離の分類



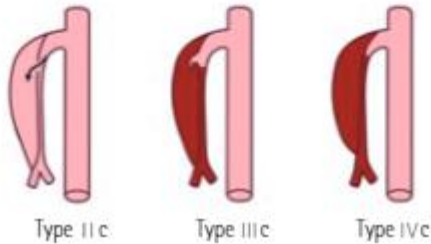
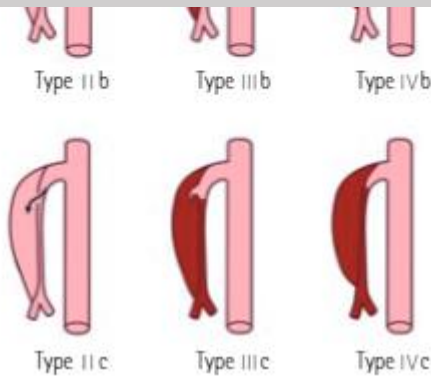
Liの分類



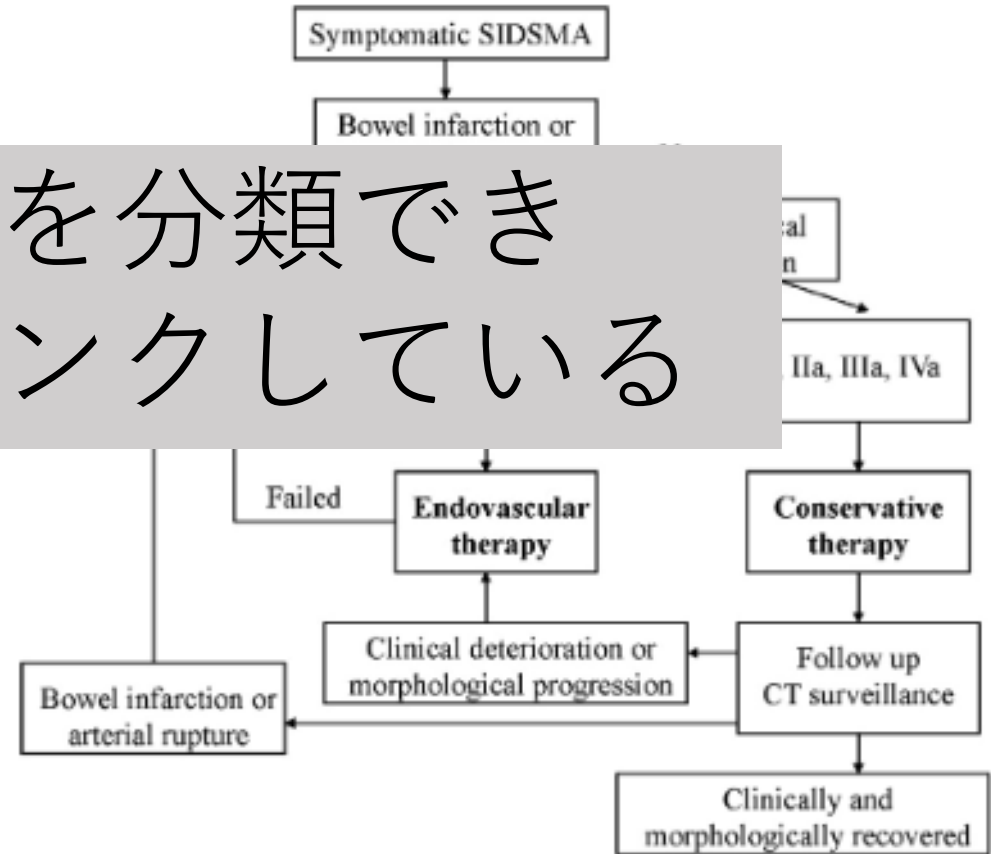
孤発性上腸間膜動脈解離の分類



最も正確に病型を分類でき
治療方針にもリンクしている



Liの分類



孤発性上腸間膜動脈解離の治療

- ①保存的治療
- ②血管内治療
- ③手術

保存的治療

- 腸管安静、胃管留置、輸液、IVH、降圧薬、抗凝固/抗血小板療法
- 無症状もしくはSMA真腔が40%以上保たれているor側副路の発達が見られる場合有効
- 12.5～70.6%で保存的治療のみで改善

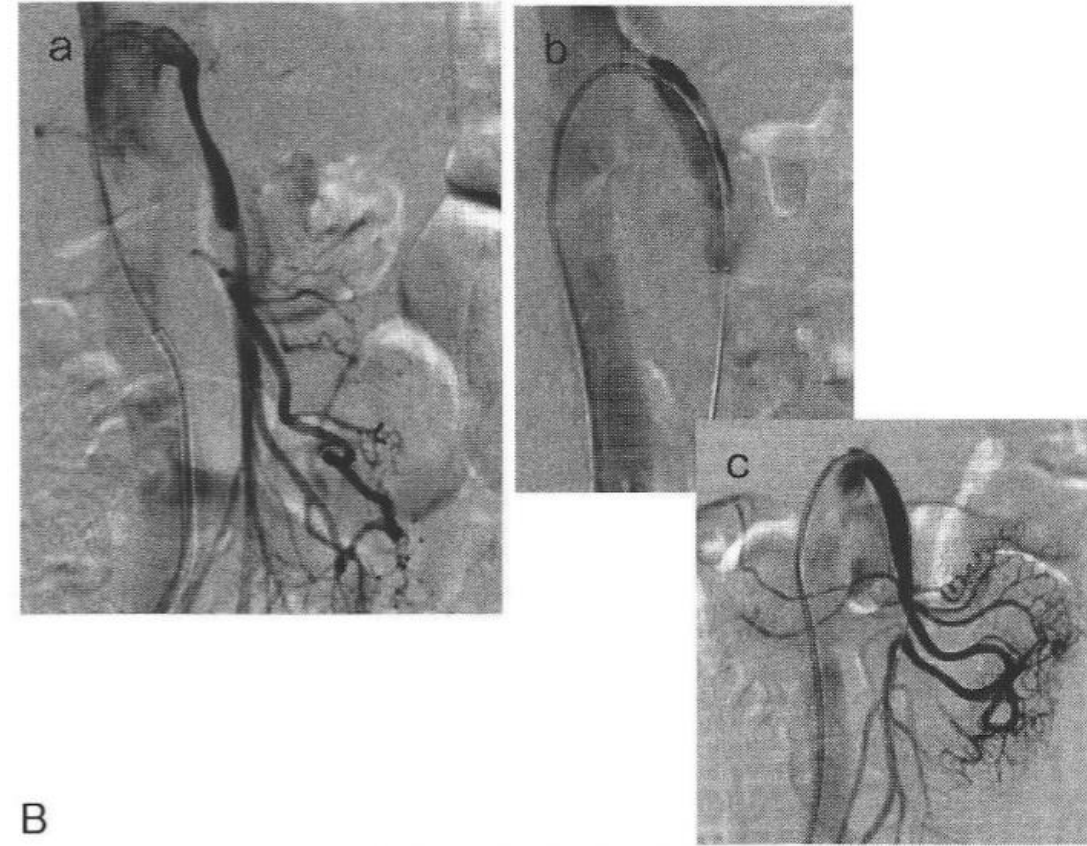
血管内治療

- 血管拡張薬注入、POBA、ステント留置、破裂したSMA分枝/SMA仮性動脈瘤の塞栓などが報告
- consensusのとれた適応なし。以下適応の例。
 - ①80%以上の真腔狭小化、2cm以上の仮性瘤（Min et al.
 - ②持続する腹痛、2cm以上の仮性瘤、保存的治療失敗例（Luan et al

血管内治療

ステント留置

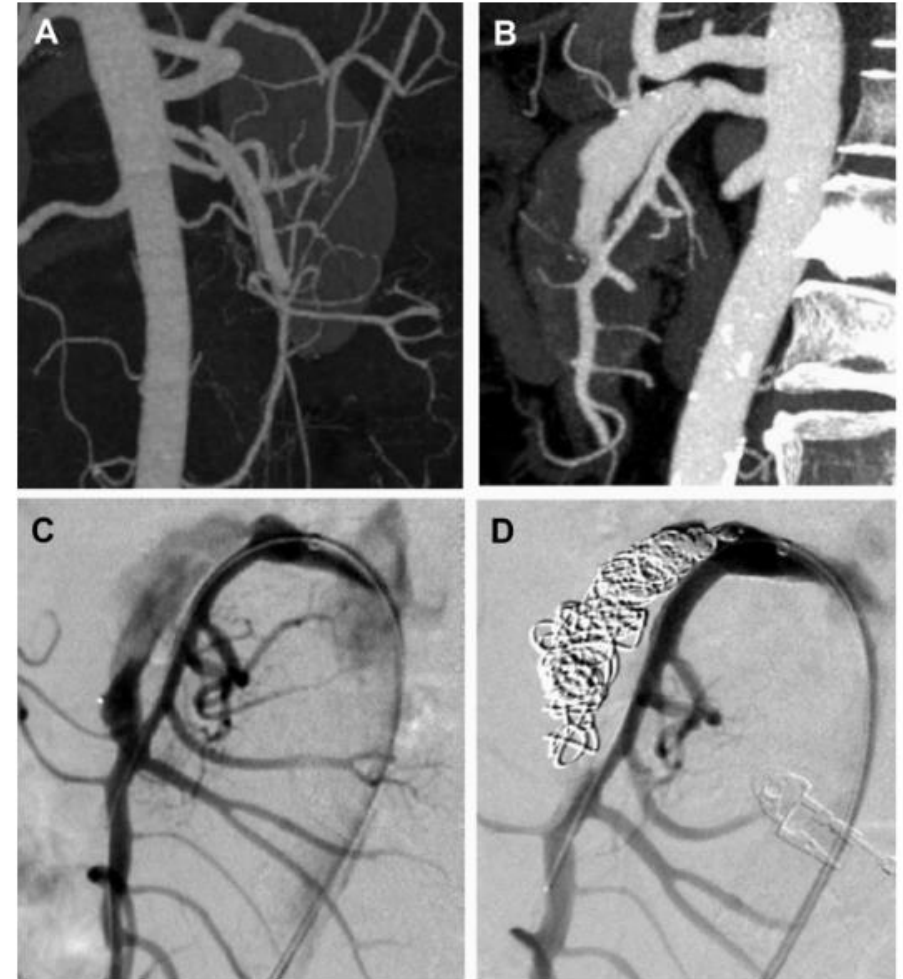
- 真腔の血行再建、解離腔の進展予防が目的
- 手技的成功率 97.6%
- 症状は迅速に改善
- 手術と比較し回復が早く、絶食期間が少ない
- 短期成績は良好 長期成績は不明
- ステントグラフトの報告もあるが分枝塞栓の問題からベアステント推奨
- 柔軟性、radial force、長さの点からself expandingステント推奨



血管内治療

コイル塞栓

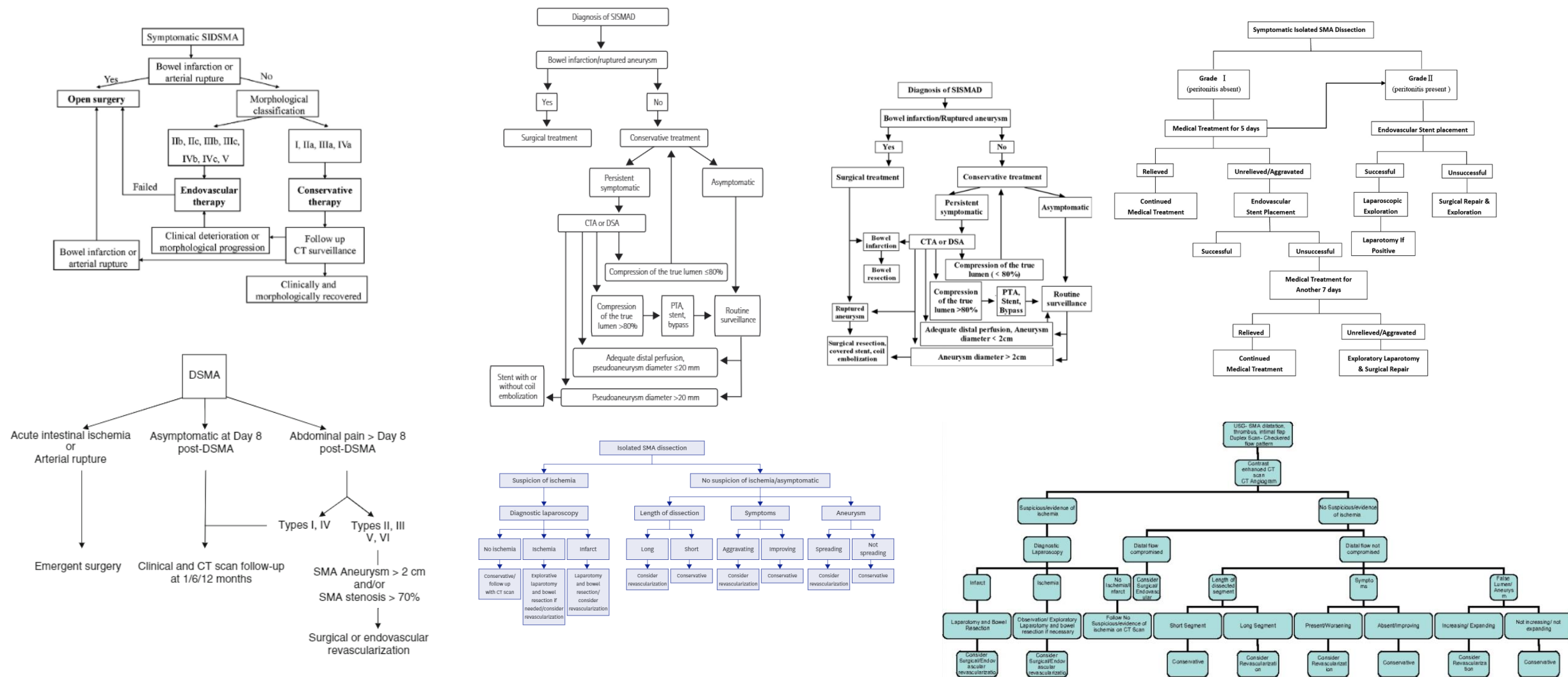
- 偽腔の破裂、真腔狭窄のリスクあり
- 真腔へのステント留置のみで偽腔の血栓化、偽腔の仮性瘤縮小が期待できるので必要ない可能性あり



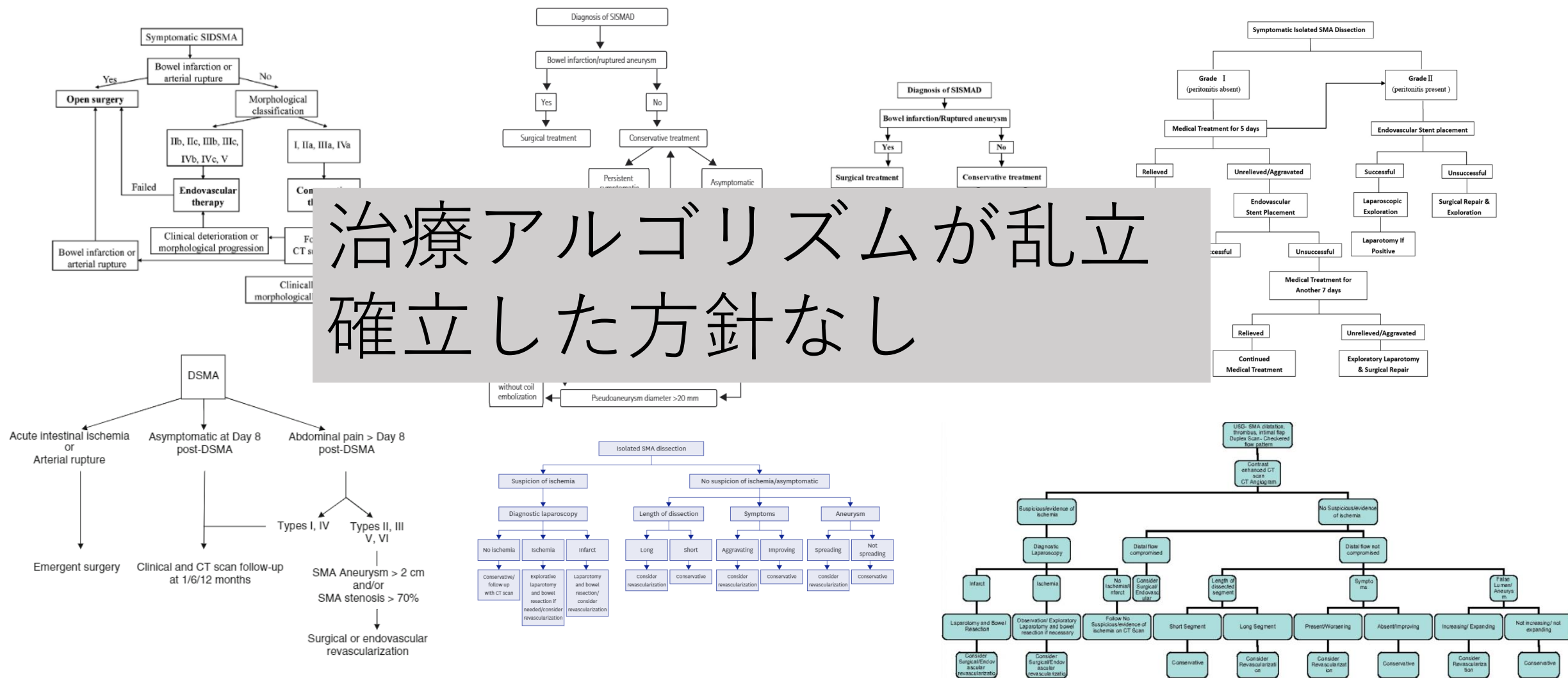
手術

- 大動脈-SMA bypass、右胃大網動脈-SMA bypass、右総腸骨動脈-SMA bypass、interposition bypass、血栓内膜摘除、パッチ形成術、transposition of SMA to the aorta、瘤縫縮、腸切除など
- 侵襲的。血行再建は手技的に難しい。(
- 動脈破裂、腸管壊死、血管内治療失敗例が適応
- 孤発性上腸間膜動脈解離の3.2%にしか適応されない

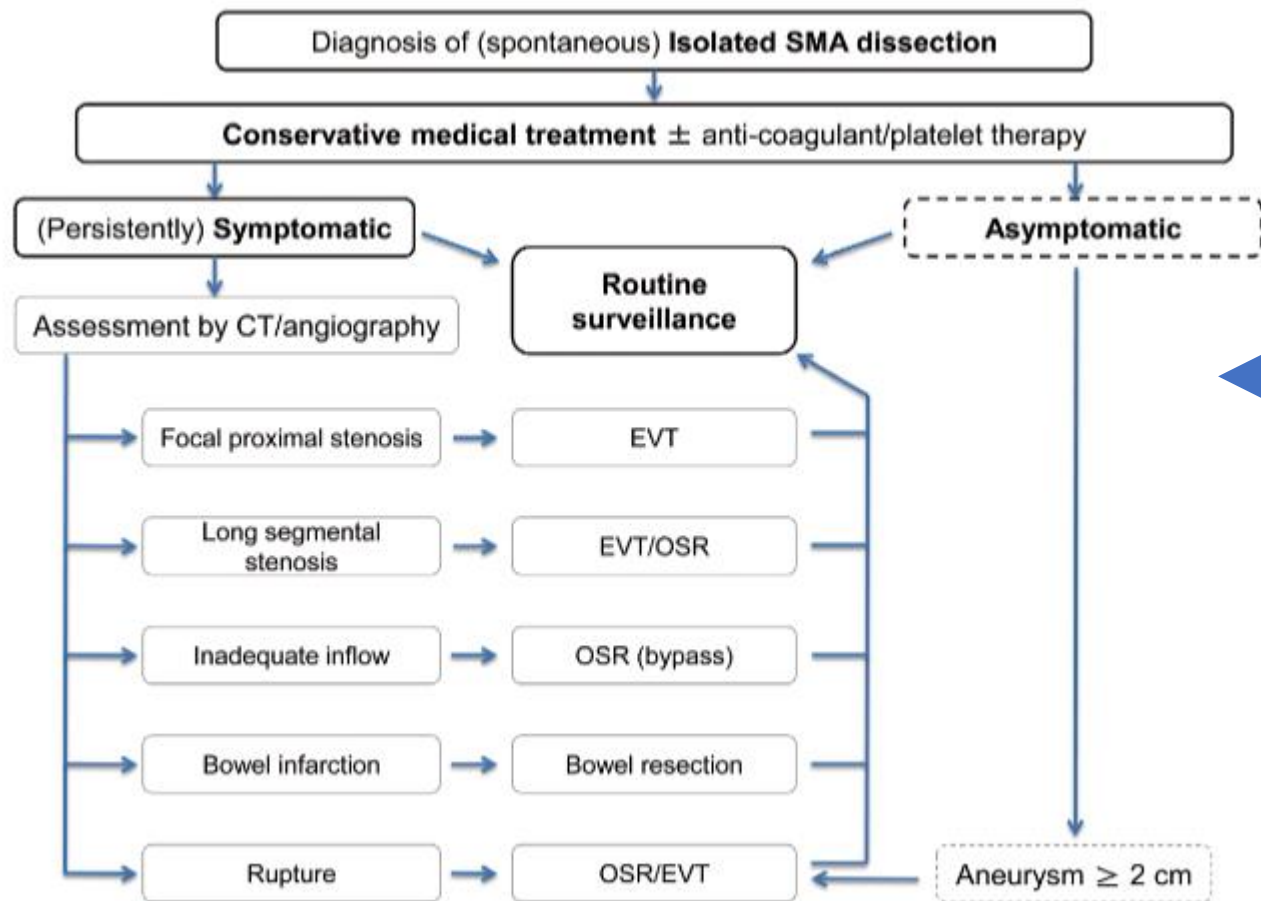
孤発性上腸間膜動脈解離の治療方針



孤発性上腸間膜動脈解離の治療方針

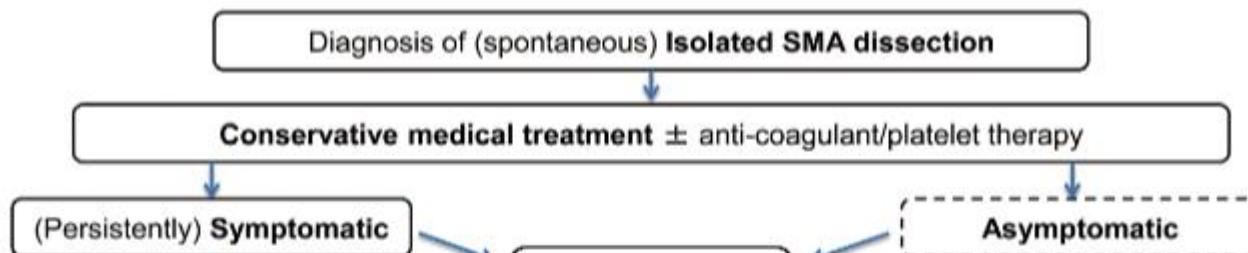


孤発性上腸間膜動脈解離の治療方針



唯一まずは経過観察を推奨しているアルゴリズム

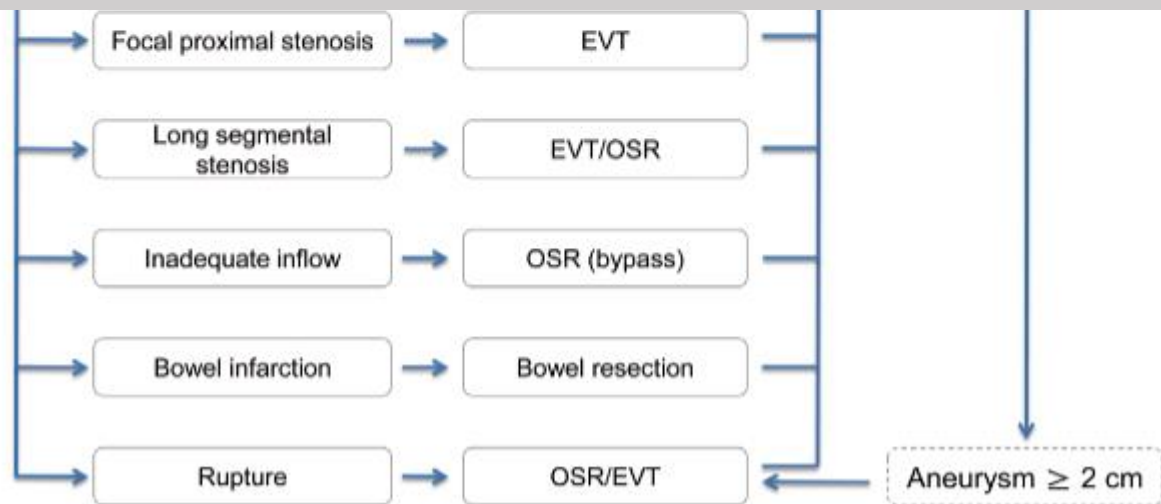
孤発性上腸間膜動脈解離の治療方針



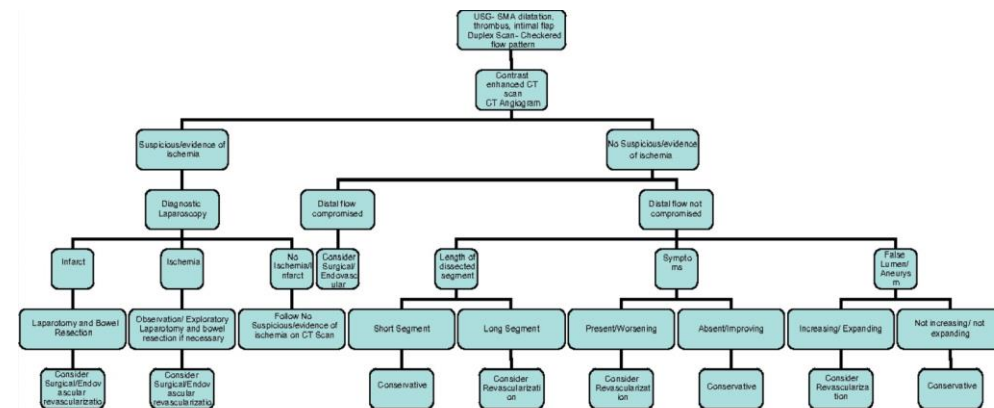
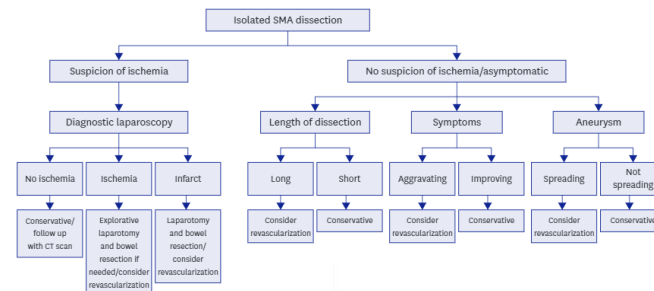
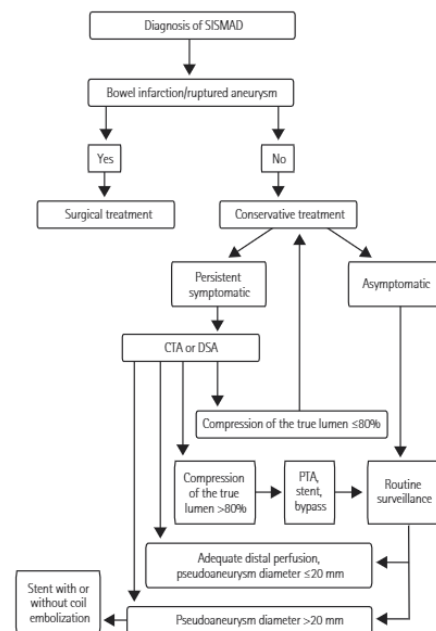
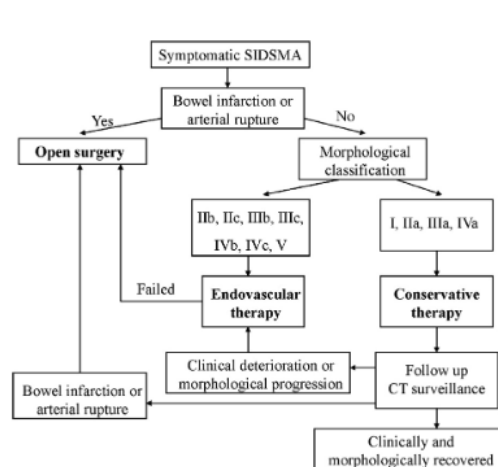
一概にまず経過観察するのは危険そう

を推奨して

いるノルコリヘム

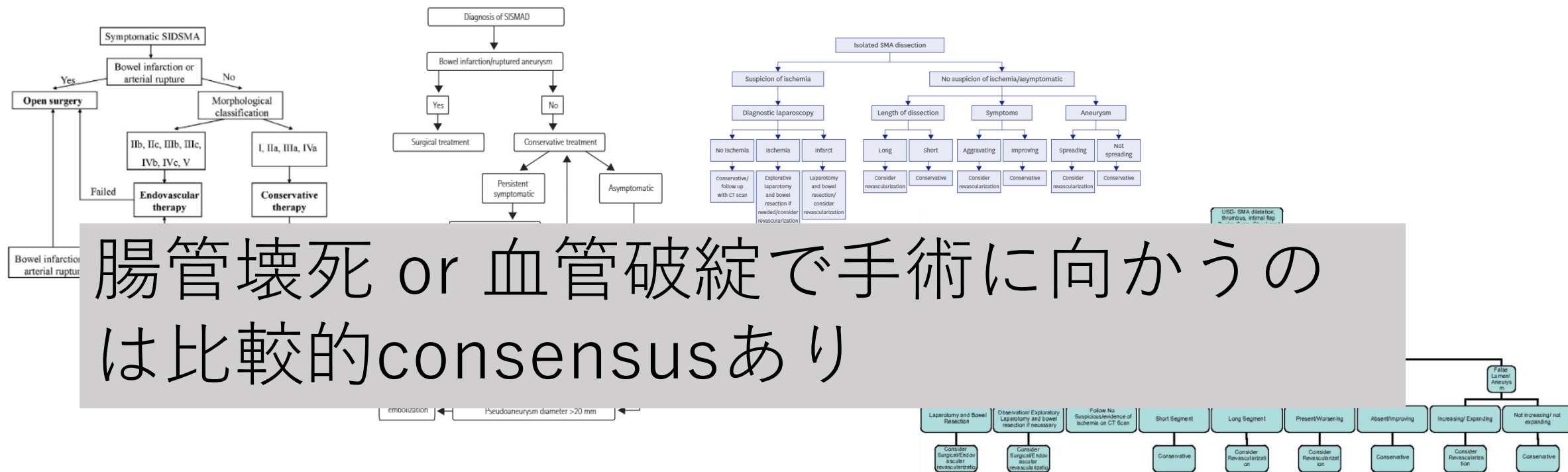


孤発性上腸間膜動脈解離の治療方針



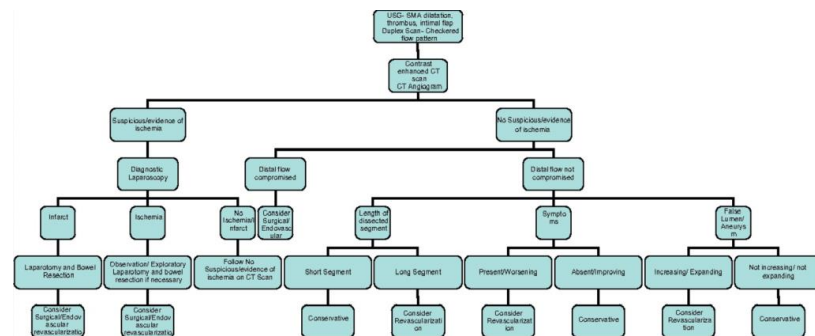
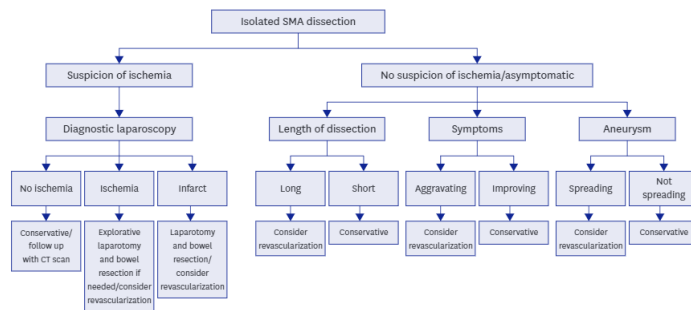
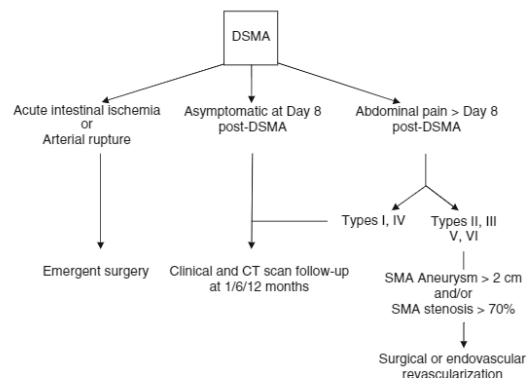
ほとんどのアルゴリズムで腸管壊死、血管破綻で手術を推奨

孤発性上腸間膜動脈解離の治療方針



ほとんどのアルゴリズムで腸管壊死、血管破綻で手術を推奨

孤発性上腸間膜動脈解離の治療方針



Bowel ischemiaでは手術を推奨

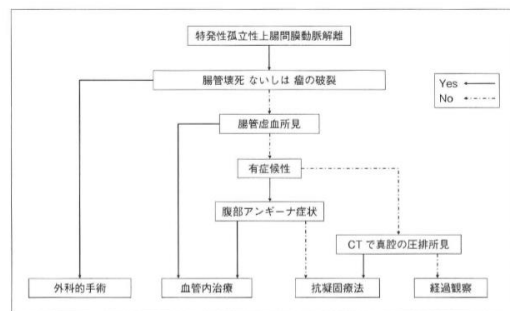
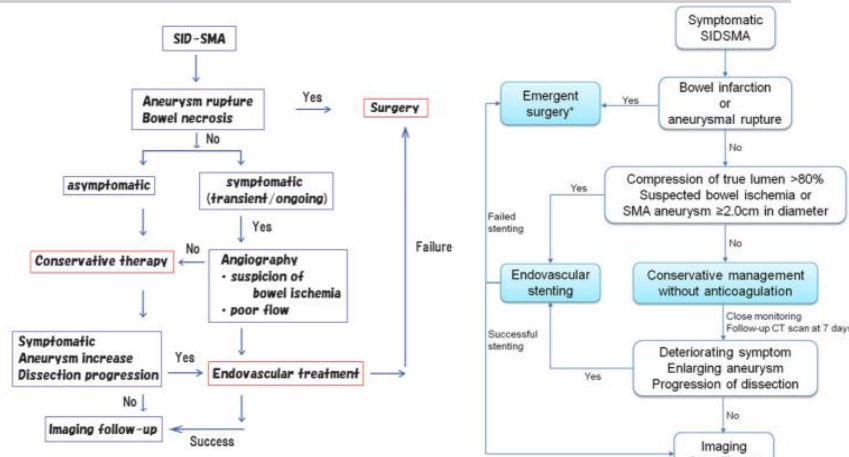
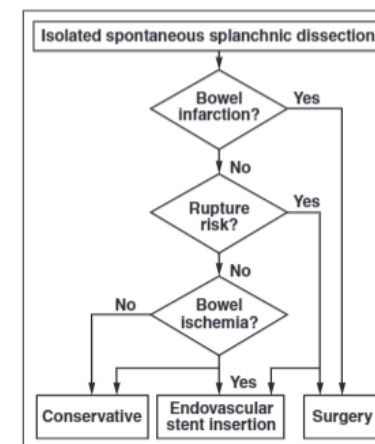


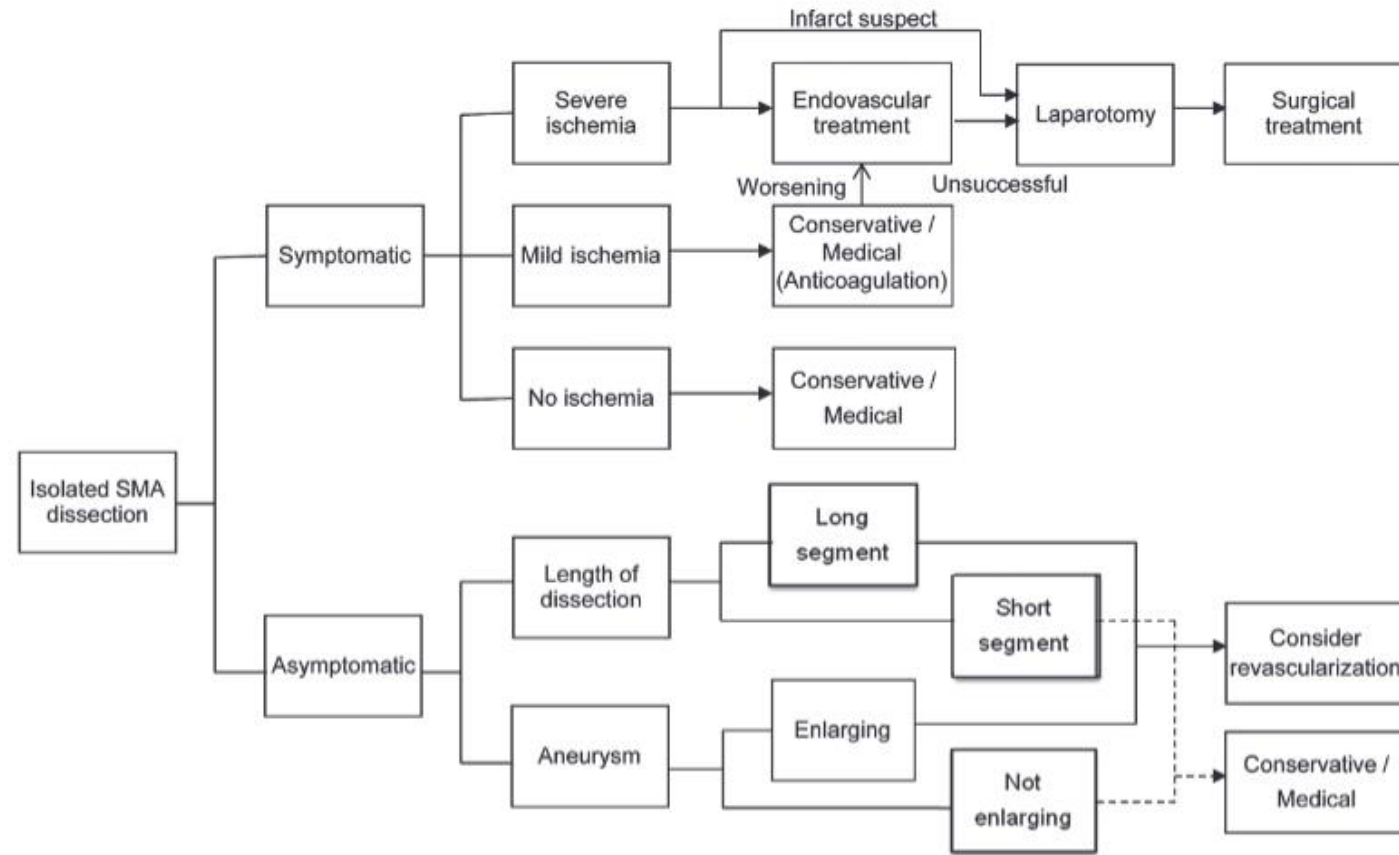
図3 特発性孤立性上腸間膜動脈解離における当院での治療方針のアルゴリズム



Bowel ischemiaでは血管内治療を推奨

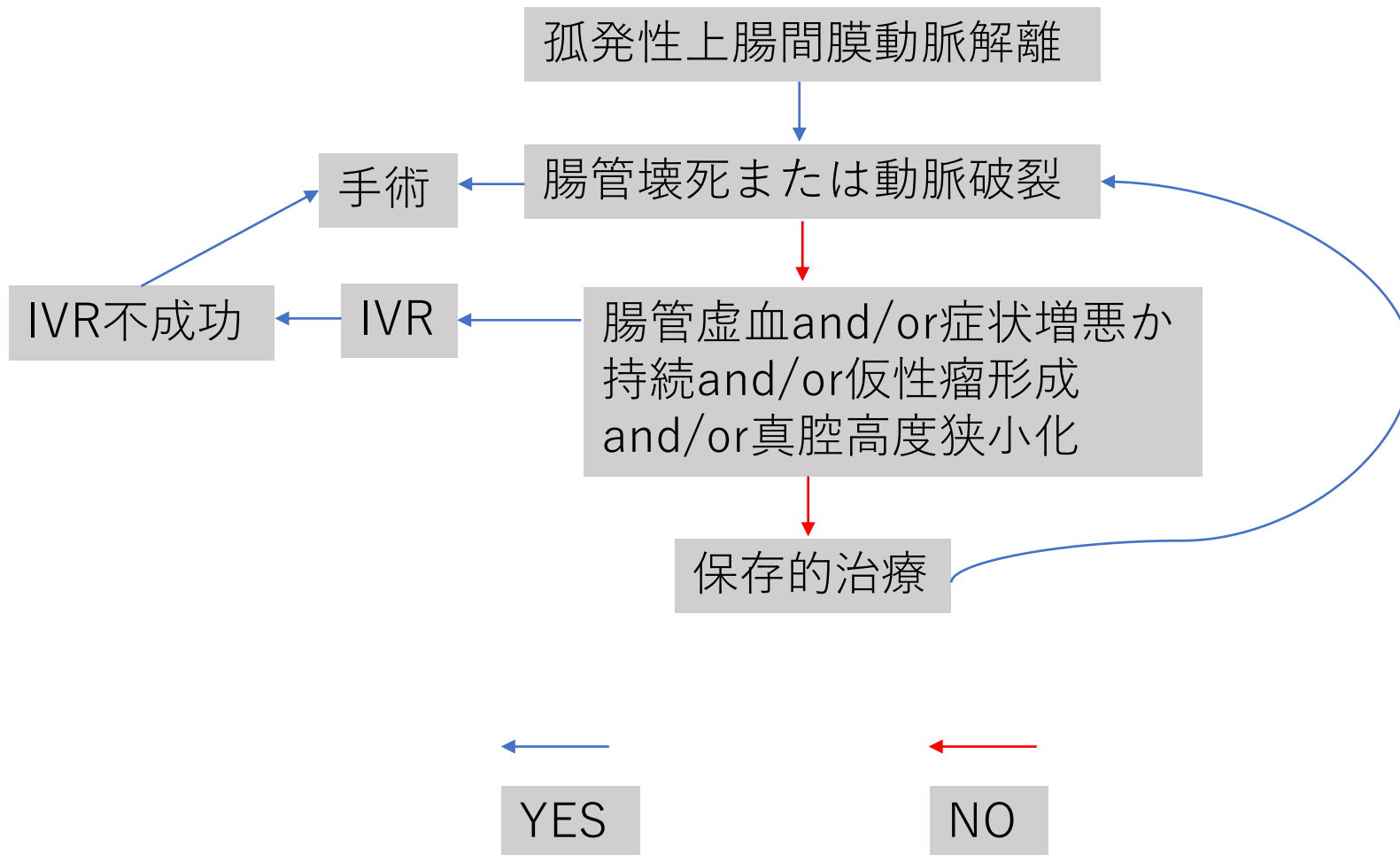


孤発性上腸間膜動脈解離の治療方針



Bowel ischemiaの程度で保存的治療、血管内治療、外科手術のどれにするか決定

孤発性上腸間膜動脈解離の当院での治療方針



結語

- ステンント留置が奏功した孤立性状腸間膜動脈解離の一例を経験した。
- SMA解離は多くが保存的治療で軽快するが中には外科的治療や血管内治療を要するものもあり稀に致命的となることもある。

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