

Introduction

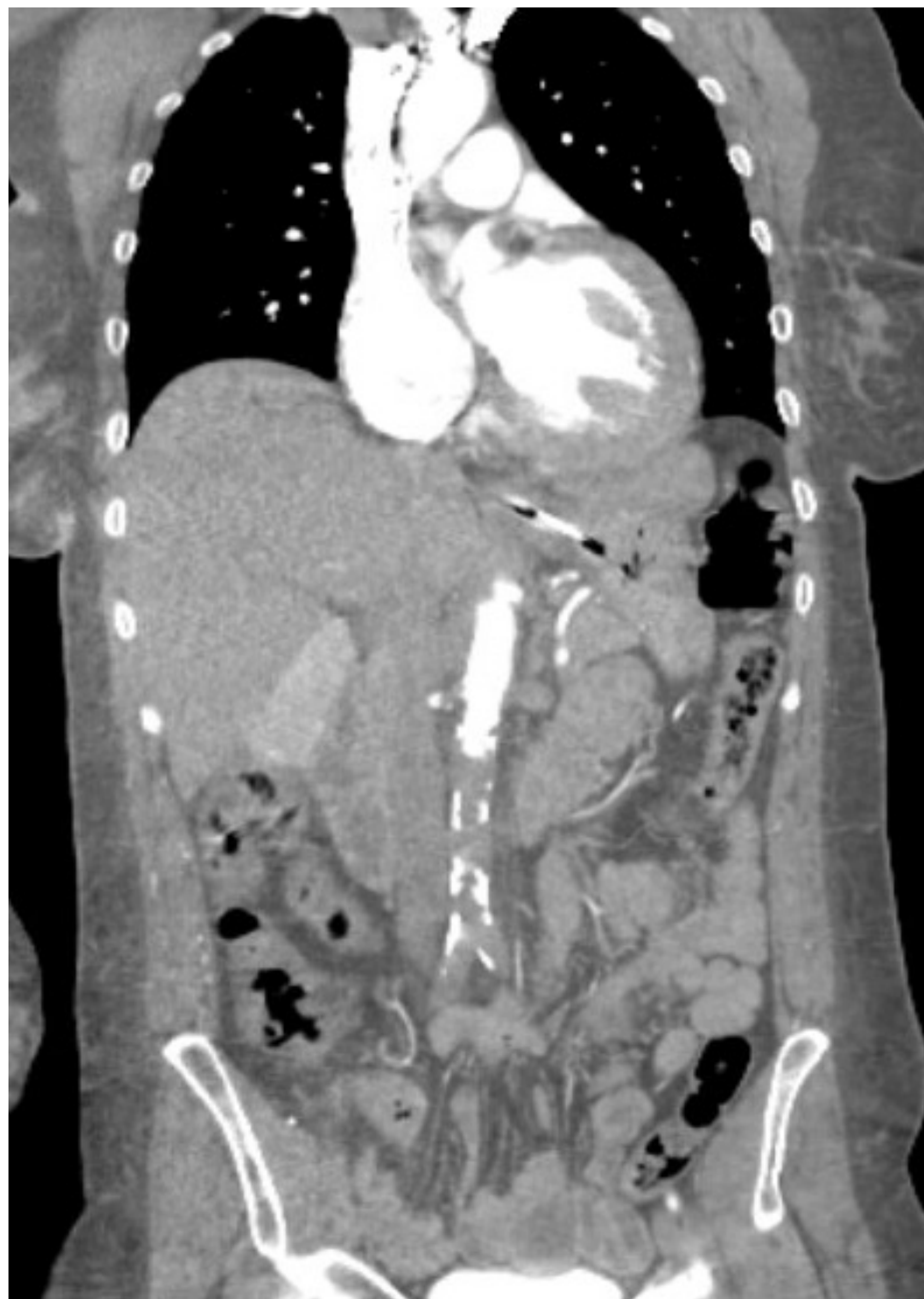
- Current clinical guidelines recommend **avoiding neuraxial** instrumentation in the setting of ongoing Clopidogrel administration.
- The effects of Clopidogrel and **risk of epidural hematoma** are well documented.
- Unfortunately, no case reports or **recommendations** are available for managing patients requiring neuraxial procedures in the setting of continual dual-antiplatelet therapy.
- This case highlights the **decision-making process** in a patient whom **an intrathecal drain** was placed in the setting of **continuous Aspirin and Clopidogrel dual therapy**.

Case presentation

- A 55-year-old female presented for an **emergency angiogram** to attempt recanalization of a total occlusion of the right iliac arterial system. This was complicated by an **iatrogenic type B aortic dissection**.
- Repair of this aortic dissection was prematurely aborted due to persistent hemodynamic instability, resulting in **ST elevations** in a patient with a recent positive cardiac stress test.
- On post-operative day1, **loss of right lower extremity motor function** and worsening of pre-existing left lower extremity function was noted.
- Due to concerns for spinal cord ischemia, a spinal drain was considered.
- The patient had received a **loading dose and 3 days course of Aspirin and Clopidogrel**.
- Platelet counts were 130,000/ml.
- As the patient did not have capacity to consent, the health care POA was counseled and accepted the elevated risk of epidural/spinal hematoma and potential need for surgical decompression to prevent worsening paralysis should this occur.
- Post drain placement, the patient experienced acute worsening of neurological function.
- To differentiate this as a complication of spinal drain placement from a worsening spinal cord ischemia, **MRI of the lumbar spine was performed and did not reveal a hematoma**.
- The spinal drain remained in situ, and was removed on day 7 with no new neurologic deficit.

Discussion

- Antiplatelet agents are in common use in clinical practice and continue to present challenges to the anesthesiologist when they are either intentionally or inadvertently administered to a patient requiring neuraxial instrumentation.
- There is a **paucity of evidence** in the available literature on circumstances that may warrant neuraxial instrumentation in the setting of dual antiplatelet therapy.
- Careful patient selection, **individual risk-benefit analysis**, a multidisciplinary approach, and informed decision making remain crucial in such clinical cases.



Platelet function

- The current evidence on the efficacy of **platelet transfusions** prior to neuraxial instrumentation, is lacking.
- If available, the VerifyNow System, standard thromboelastogram platelet mapping test, or light transmittance aggregometry may be utilized to **evaluate platelet inhibition** and guide management.

Conclusion

- Knowledge of the lifespan of a platelet, platelet pool turnover, and the pharmacokinetics of each drug allows for informed decision making.
- Individual risk-benefit analysis, appropriate regional anesthetic techniques, respecting proper time intervals separating anticoagulant and epidural or spinal anesthesia, and continuous awareness of the possibility that a compressing spinal hematoma may develop should enable us to make anesthetic practice safer without withholding anesthetic techniques from patients who would most certainly benefit from them.
- Our case demonstrates **the interdisciplinary cooperation**, options, and informed decision making necessary when presented with a scenario in which neuraxial instrumentation is warranted in the setting of dual-antiplatelet therapy

References

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- Connors et al (2017) A & A Case Reports 8(11):p 279-281
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