INTRODUCTION

• Acute DIC is often seen as a complication of decompensated clinical conditions such as sepsis, leukemia/lymphoma, trauma or intravascular hemolysis.
• Rarely, it can be associated with relatively asymptomatic conditions such as prostate cancer.
• DIC with excessive fibrinolysis is characterized by uncontrollable hemorrhage and is difficult to manage -- direct therapies are far and few between.

CASE OVERVIEW

HPI:
78 year old male presented to the ED with persistent epistaxis and worsening body bruising for the past 2 weeks. Otherwise, he was asymptomatic.
• Patient denies any history of easy bleeding or bruising
• ROS negative for bone pain, weight loss, night sweats

PMH:
• Metastatic, castrate-resistant prostate cancer, T3bNxM1
  o Metastatic to pelvis/L-spine and retroperitoneal lymph nodes
  o Disease progression despite Leuprolide/Docetaxel and Bicalutamide

Vitals:  Afebrile, BP 97/52, HR 96, R 16, SpO2 96% on RA

Physical Exam:
• Pleasant, elderly male speaking in full sentences
• Ongoing epistaxis from right nares
• Diffuse ecchymoses covering bilateral upper and lower extremities
• Normal cardiopulmonary, abdominal and neurologic exams

DISCUSSION

• Acute DIC involves concurrent, pathological activation of coagulation and fibrinolysis, resulting in excessive coagulation and bleeding.
  o A rapid, consumptive coagulopathy outpaces production of normal coagulation factors. Typical lab findings are shown below:

| WBC | 9 |
| Hgb | 5.7 (L) |
| Plt | 75 (L) |
| INR | 1.5 (H) |
| PT  | 18.2 (H) |
| aPTT| 49.2 (H) |
| Fibrinogen | 72 (L) |

The most common causes of DIC include: sepsis, trauma, malignancy, obstetrical complications and intravascular hemolysis\(^1\).
• DIC with excessive fibrinolysis, as seen in this patient, has been reported rarely in the literature but can be associated with metastatic prostate cancer and correlates with a poor prognosis\(^2,3\).
  o Uncontrolled hemorrhage remains the main cause of mortality.
• Initiation of chemotherapy in prostate cancer complicated by DIC has been correlated with increased survival.
• The mainstay of management for DIC includes supportive measures while treating the underlying condition.
• Direct therapies for DIC include Activated Protein C Complex and Heparin, which have been associated with decreased overall bleeding and improved consumptive coagulopathy. However, these interventions have no effect on overall mortality and are supported by weak evidence\(^4,5\).

References


