Case Presentation

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Case Presentation

* A 23-year-old man was admitted to our emergency department due to persisting angina for an hour.
* Patient described that his chest pain had started 2 h after self-administration of sildenafil 100 mg for sexual intercourse.
* Traditional risk factors for coronary artery disease were absent in the patient's medical history.

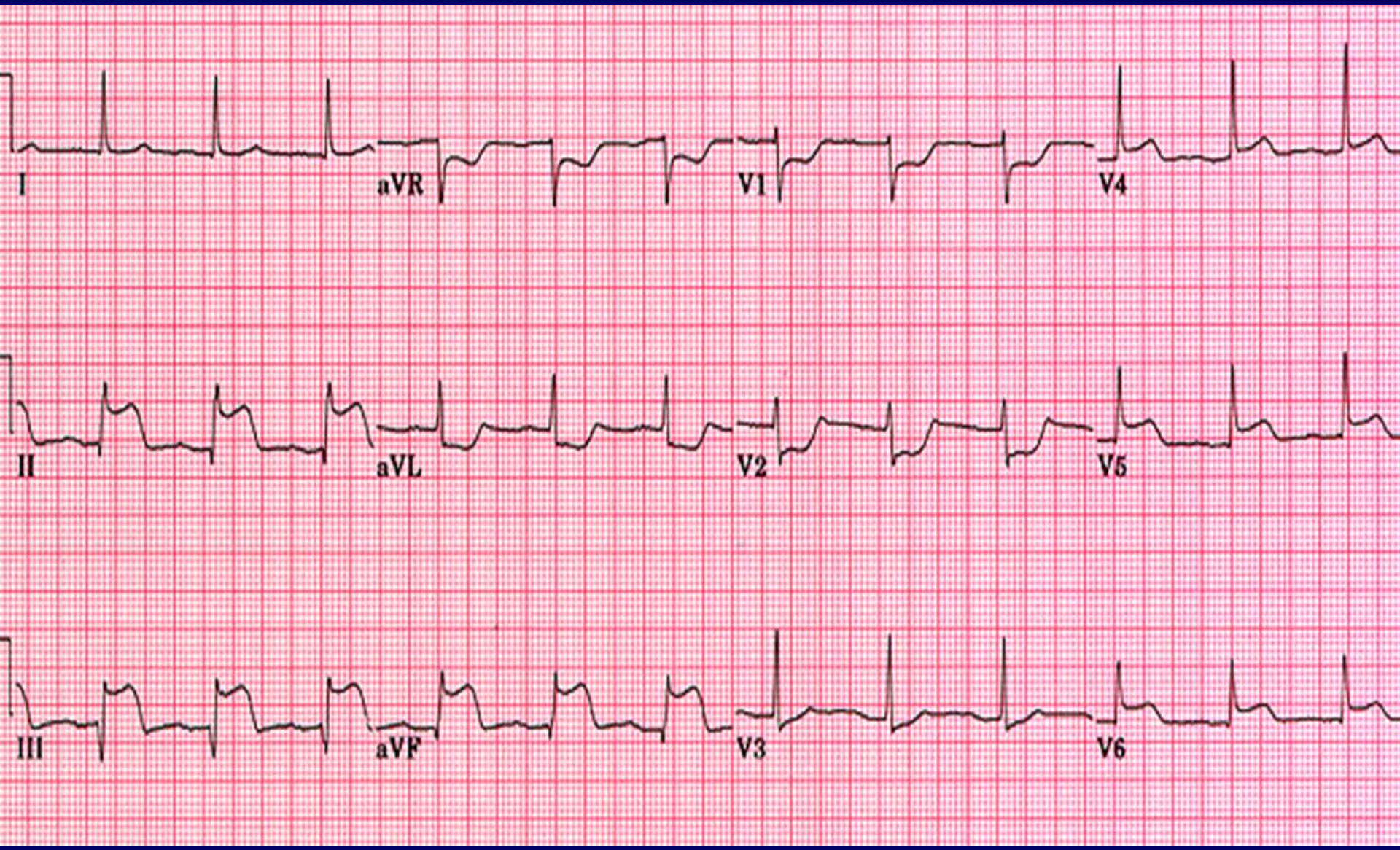
Case Presentation

- The patient had no known significant medical illness and denied smoking, alcohol abuse or illicit drug use, and had no family history of significant medical illness.

Case Presentation

- P/E → cardiac sounds were normal & Pulmonary assessment was normal.
- BP= 92/64 mm Hg HR = 93 bpm.
- Transthoracic echocardiography →
  - hypokinesia of the inferior wall
  - ejection fraction of 50%
  - no intracardiac thrombosis or mass

ECG



Case Presentation

- WBC = 18.5×109/L
- PLT = 380×103/mm3
- LDL cholesterol = 123 mg/dL
- HDL cholesterol = 38 mg/dL
- Triglyceride = 148 mg/dL,

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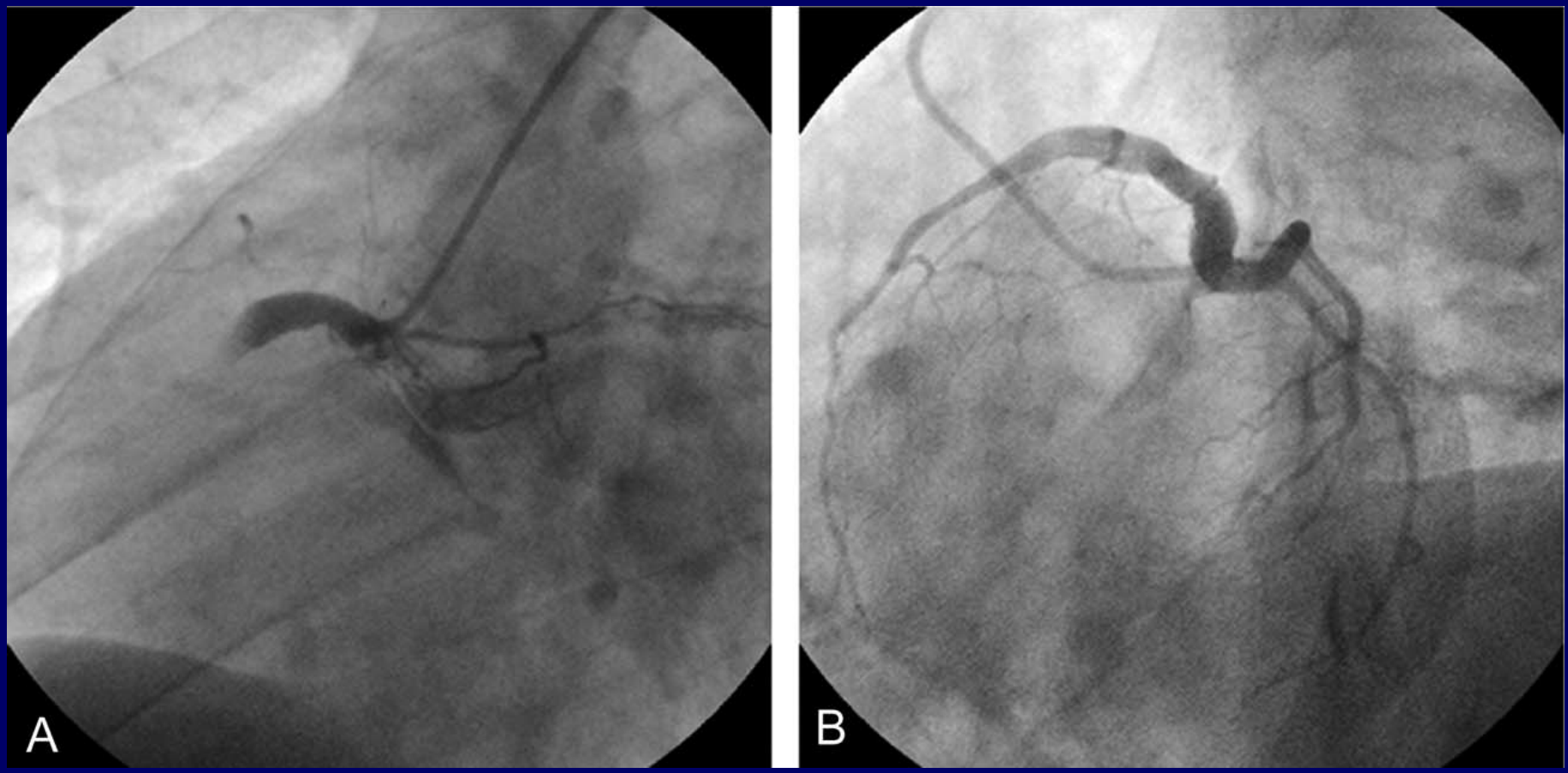
- Serum troponin = I 0.70 ng/mL (NL = 0–0.2 ng/mL)
- CK-MB = 54 ng/mL (NR 0–25 ng/mL)
- ESR = 42 mm/h (NR 0–20 mm/h)
- C reactive protein = 10.76 mg/dL (NR 0–0.5 mg/dL).

Investigations

- After an initial evaluation, CAG was immediately performed.
- The CAG → total occlusion with a thrombus in the proximal segment of the RCA and diffuse coronary ectasia in the proximal and mid segments of all three coronary arteries

Investigations



Differetial Diagnosis

- Coronary artery vasculitis
- The patient was referred to:
  - Rheumatology
  - Dermatology
  - Ophthalmology
- Negative for:
  - Antinuclear antibody
  - antineutrophil cytoplasmic antibodies
  - lupus anticoagulant
  - cardiolipin antibody

Differetial Diagnosis

- Normal range with:
  - Protein C
  - Protein S
  - Antithrombin levels
- Factor V Leiden mutation was not present.

Differetial Diagnosis

- As a result of consultations, the patient was diagnosed with **Behcet's disease** because:
  - Recurring mouth ulcers at least three times a year
  - Recurring genital ulcers
  - Positive pathergy test.

Treatment

- The patient was discharged with:
  - Clopidogrel 75 mg/day
  - Acetylsalicylic acid 100 mg/day
  - Prednisolone 30 mg/day → gradually tapered to 5 mg/day for 3 months
  - Azathioprine 50 mg q8h

Discussion

- Few points can be emphasised for the present case:
  - The patient was too young to have an AMI
  - Diagnosis of BD was made after acute MI on suspicion of coronary Arteritis
  - Acute MI might be precipitated by sildenafil

Discussion

- Few points can be emphasised for the present case:
  - Coronary artery ectasia appears as the main factor causing acute MI, however, coronary ectasia has been little reported in the literature related to Behcet's disease
  - Treatment of large coronary thrombus has some difficulties especially in patients with Behcet's disease

Discussion

- Behcet's disease is a multisystemic inflammatory process & mainly affects people 20 and 40.
- Blood vessels involement of nearly all sizes and types
- The diagnosis → depends on clinical criteria.

Discussion

- International Study Group:

- Oral aphthous ulcerations & two of the following clinical sign are required for the diagnosis:
  - Recurrent genital ulcerations
  - Skin lesions (papulopustular lesions)
  - Ocular involvement
  - Positive pathergy test

Discussion

- Arterial lesions in Behcet's disease include:
  - Thrombosis, Stenosis, Aneurysms,
  - Affect mainly pulmonary, iliac, popliteal, femoral and carotid arteries.

Discussion

- Arterial involvement → neutrophilic vasculitis targeting the vasa vasorum.

Discussion

- Coronary involvement → aneurysm formation and AMI are rarely reported.
- Coronary ectasia might be an early stage of aneurysmal formation and an early sign of Behcet's disease .

Discussion

- Sildenafil may lead to a prolonged and exaggerated vasodilation causing mild-to-severe hypotension in patients with known CAD and in those taking nitrate therapy.
- Although it has been rarely reported, sildenafil-associated AMI can be seen in patients without a history of CAD and also nitrate-free patient.

Discussion

- As AMI occurred after taking a high dose (100 mg) of sildenafil that had been received for the first time in his life, it may suggest us to trigger impact of this drug

Learning points

* Coronary involvement is uncommon in patients with Behcet's disease. However, it may occur irrespective of their age.

* Sildenafil may trigger an acute myocardial infarction in patients with Behcet's disease.

Learning points

- In the setting of ST elevation MI, percutaneous coronary intervention might be challenging due to a large thrombus burden and pathergy-like effect.

Conclusion

- Consequently, in the present case, exact mechanism leading to acute MI is unclear.
- However, we thought that all factors including BD and sildenafil might have affected thrombus formation

Outcome & Follow -Up

- The patient was symptom-free at 1 year follow-up.