

European school of
internal medicine

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Case presentation

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Anamnesis

- 51 – years old woman was presentated on ER with chestpain
- **Personal anamnesis:**
 - Neuralgic pain (migraine)
 - Peripheral lymphedema
 - Cystic breast masses
- **Allergy:** PNC
- **Familly history:** negative
- **Abusus:** non smoker, alcohol – occasionally
- **Pharmacological anamnesis:** Ergotamine supp.

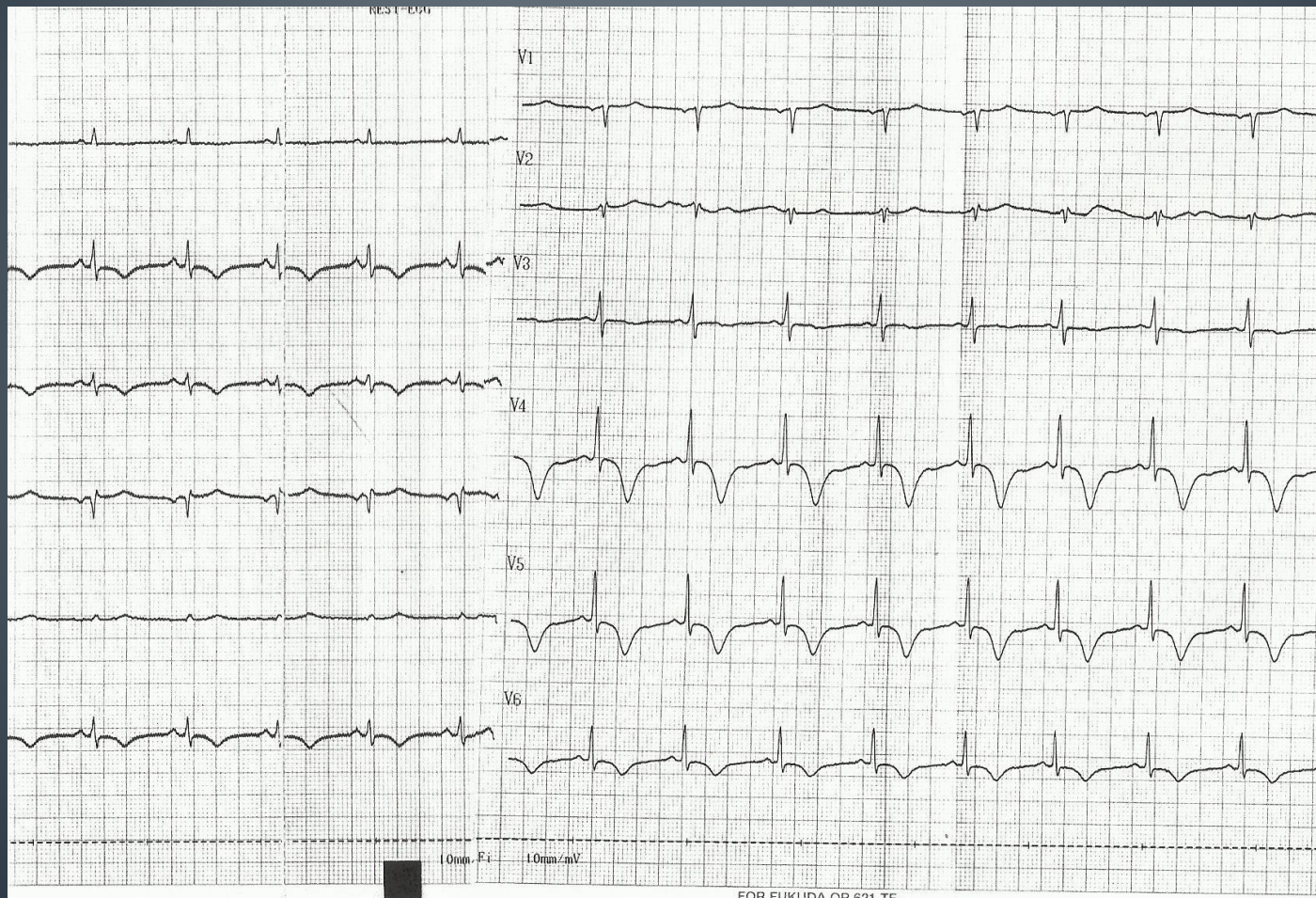
Status and clinical signs

- One - hour lasting chestpain, without irradiation, she described these pain as a pressure in the middle of sternum, pain stopped before coming to hospital, 1st attack in her life
- BP 170/90mmHg, pulse 83/min, reg., no breathlessness, saturation normal, auscultation normal, no swellings

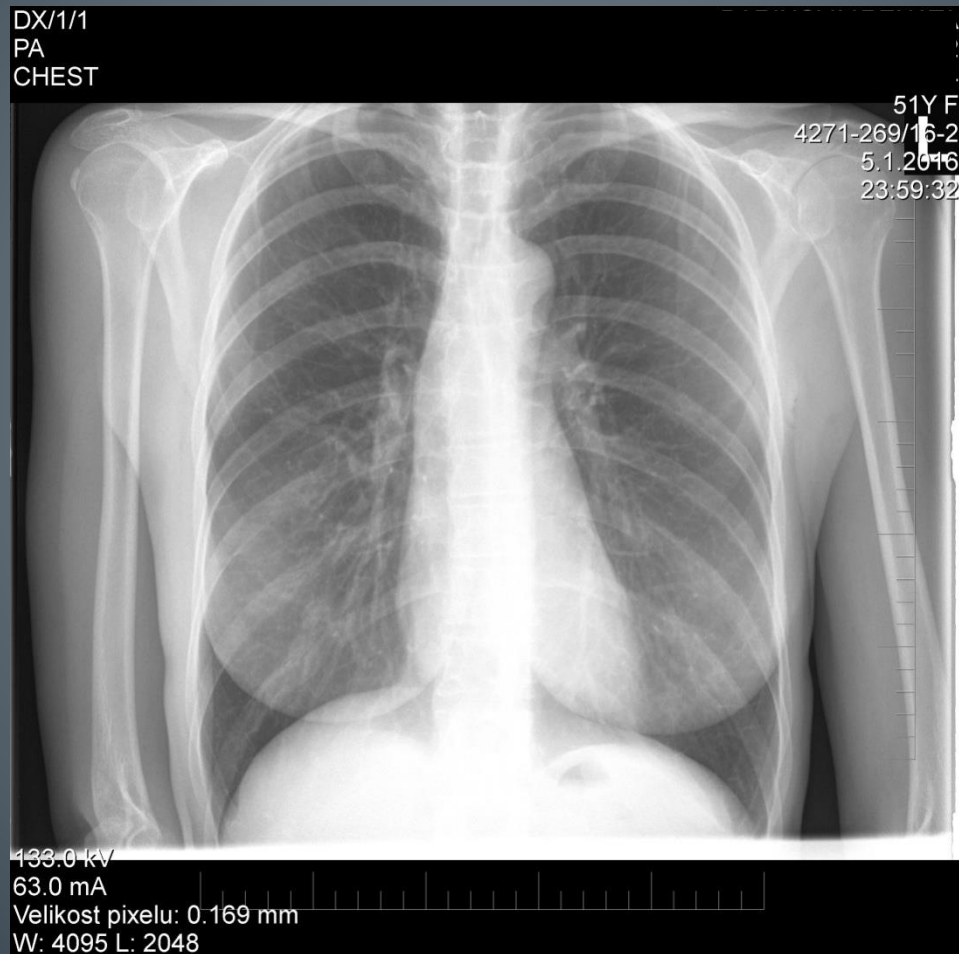
What would you do?



ECG



Chest X-ray



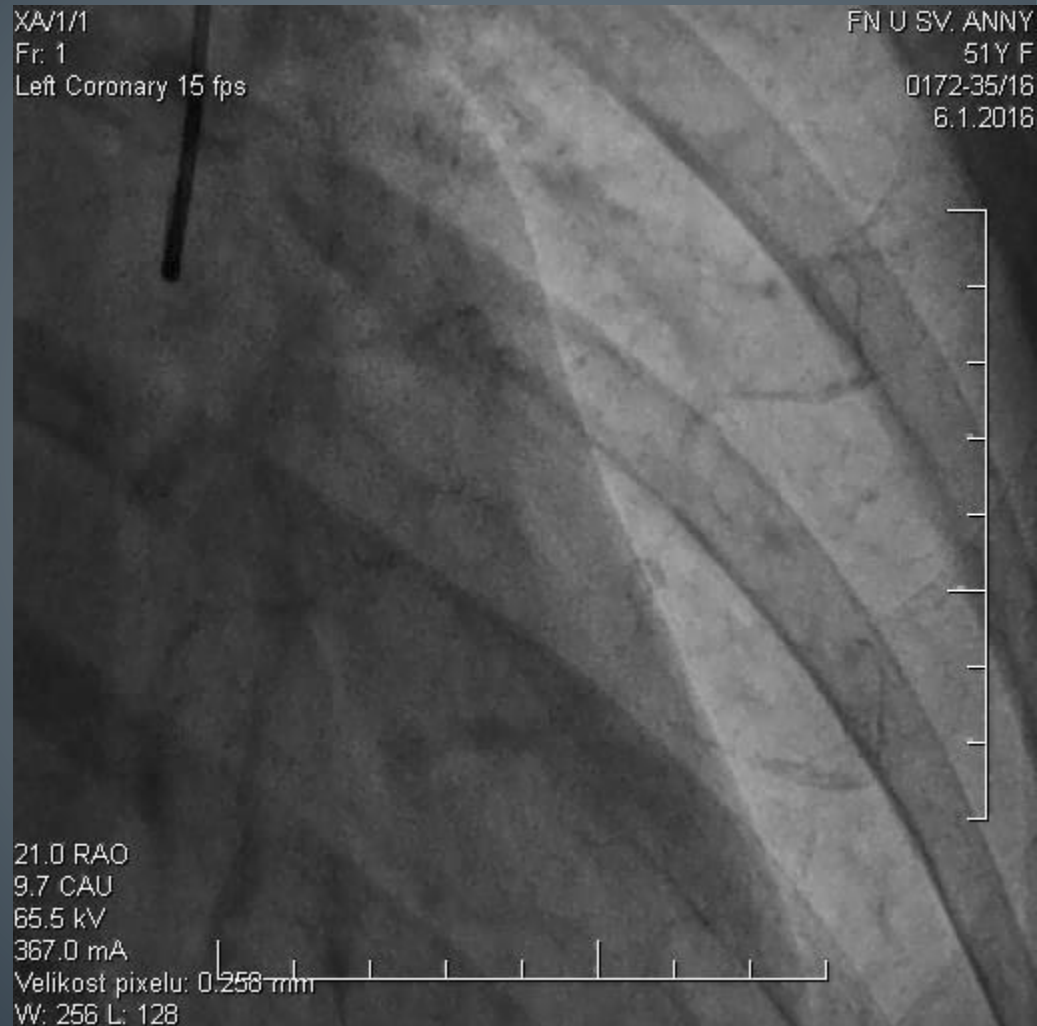
Laboratory

- HGB **116**(120-140g/l), Leu 5.9, THR 245
- Ur 4, Creat. **95**(44-85g/l), TnT **150**(< 14ng/l), CK-MB 0.3, CK 1.94, K/S 3.9

Angiography

- Acute myocardial apical infarction, smooth walled arteries, without atherosclerosis
- Coronary vasospasm of right interventricular artery (RIA) without effect of nitrates
- RLVG: apical akinesis, EF LV 58%

Angiography



What would you do next ?



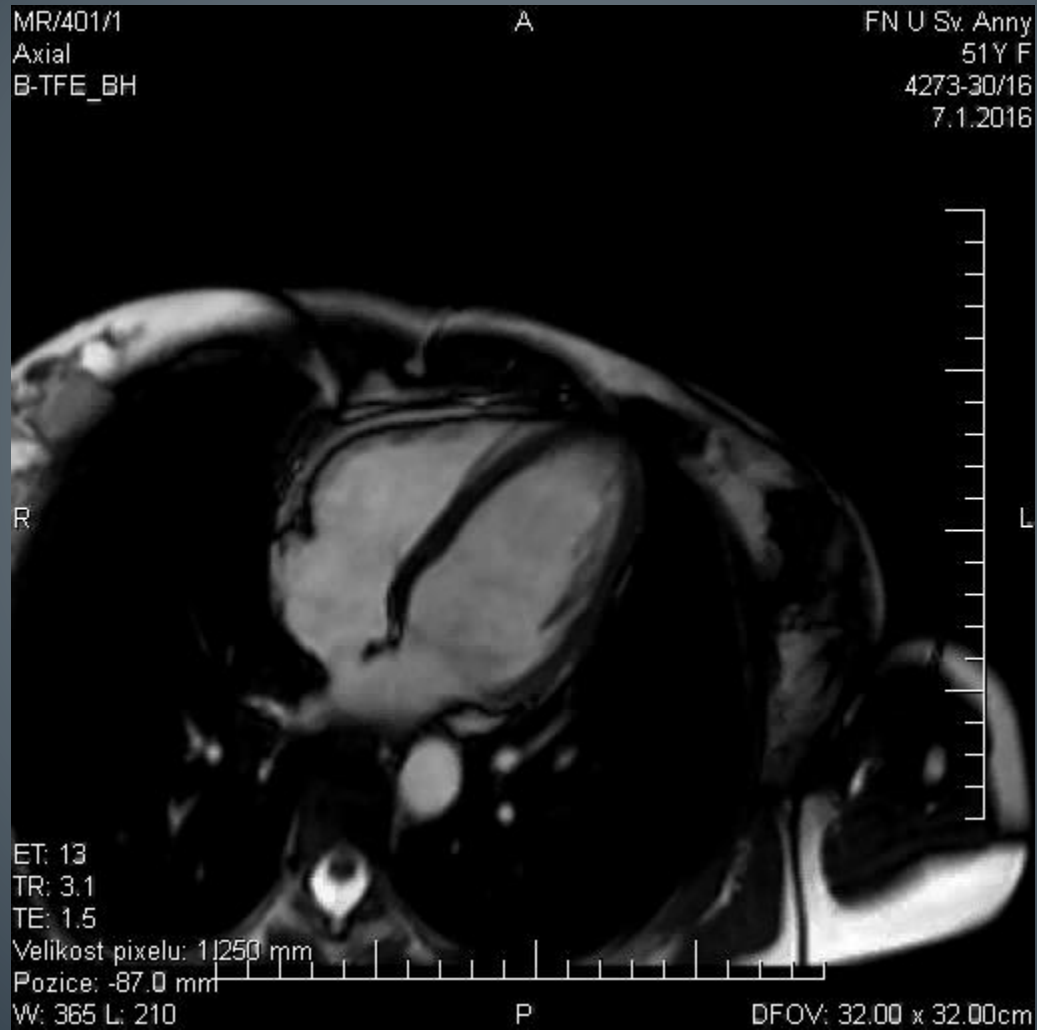
Magnetic Resonance

- Apical akinesis of left ventricle
- Myocardial infarction in periphery of RIA

MRI



MRI



Summary

- young women with myocardial infarction, but smooth walled arteries, without atherosclerosis, coronary spasmus on coronarography, no effect of nitrates
- family history negative, no risk factors

What did it cause?



Differential diagnosis

- ICHS
- Takotsubo cardiomyopathy
- Prinzmetal's angina
- Side effect of drug

Up to date

CLINICAL CARDIOLOGY: CASE REPORT

An unusual cause of chest pain: Acute coronary syndrome following administration of ergotamine tartrate

Sercan Okutucu MD, Ugur Nadir Karakulak MD, Giray Kabakcı MD, Kudret Aytemir MD

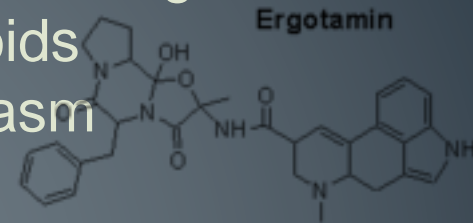
S Okutucu, UN Karakulak, G Kabakcı, K Aytemir. An unusual cause of chest pain: Acute coronary syndrome following administration of ergotamine tartrate. *Exp Clin Cardiol* 2012;17(1):43-44.

For many years, ergotamine has been used for the acute treatment of migraine. Ergotamine may produce coronary vasospasm, which is often associated with ischemic electrocardiography changes and angina pectoris.

attacks and started to use ergotamine tartrate 0.75 mg daily the Electrocardiography revealed sinus tachycardia with left ante block and T wave inversion in the precordial leads. Cardiac levels were elevated. After discontinuation of the drug and in vasodilator treatment, her chest pain resolved. Patients with mig have an underlying vasospastic disorder predisposing them to artery spasm. Physicians should be alerted to potential cardiac effects of low-dose ergotamine in the treatment of migraine.

Acute Coronary Syndrome Following Administration of Ergotamine Tartrate

- Ergotamine – used for the acute treatment of migraine
- Ergotamine – part of ergot family of alkaloids
- Ergotamine may lead to coronary vasospasm
- Predominantly younger women, who may not have the classical cardiovascular risk factors*
- Administration of ergotamine caused a reduction in coronary microcirculatory blood flow**, also can cause sudden cardiac death and arrhythmias***



* *Clinical Cardiology: case report, 2012*

** *Gnecchi-Ruscione T, Lorenzoni R, Anderson D, et al: Effects of ergotamine on myocardial blood flow in migraineurs without evidence of AS coronary artery disease*

*** *Galer BS, Lipton RB, Solomon S, Newman LC, Spierings EI: Myocardial ischemia related to ergot alkaloids*

Treatment

- Excluded ergotamine, triptans (drugs for migraine)
- Ca blockers (as a prevention of coronary spasmus)

Take home messages

- Everything don't have to be so simple as we think in the beginning
- Side effects of drugs!

Thank You For Your Attention



Czech Republic - Znojmo, South Moravia

