

Emergency Cases in Dental Surgery

Angina pectoris – harbinger of the heart attack*Michael Hillenbrand from "reanimed" in Dieckholzen, Germany*

If your patient suddenly grabs his chest and complains of severe pain, it doesn't necessarily mean a heart attack; it could be angina pectoris.

Angina pectoris is the main symptom of coronary heart disease. The most common cause of disease of the coronary vessels is arterial calcification (arteriosclerosis): Over the course of many years, cholesterol deposits (plaques) build up on the vascular walls. If plaque forms in the coronary vessels, circulation is restricted as the vessels get progressively narrower: the cardiac muscle no longer gets a sufficient supply of oxygen and nutrients.

The result is sudden acute pain in the heart area (mostly behind the breastbone), cold sweat, nausea and vomiting, "tight" feeling, extremely difficult breathing, pallid complexion, and panic to the point of fear of death.

The pain may radiate, and be misconstrued as arm, shoulder, neck pain or toothache. Also sudden (upper) stomach pains can be a sign of a cardiac emergency.

Initially, a sufferer will only notice narrowing of the coronary vessels during physical exertion. At the advanced stage of the disease, even slight physical exertion or mental stress is enough to trigger the symptoms.

The following risk factors cause hardening of the coronary arteries:

- Overweight and/or Lack of exercise
- Smoking
- High blood pressure
- Diabetes

- Genetic predisposition to calcification of the arteries
- Lipid metabolic disorders (high cholesterol level)

Angina pectoris occurs suddenly and unexpectedly and can last from seconds to minutes. Triggers are physical exertion, heavy meals, cold, excitement or mental strain, such as a visit to the dentist, which causes a lot of people immense stress.

Angina pectoris – what to do:

1. If your patient complains of sudden acute chest pain combined with a tight feeling, nausea, sweating, panic, treat it as a cardiac emergency.
2. Remain calm and collected.
3. Relieve the strain on the heart and put the dentist's chair into the neutral position
4. Give your patient medical oxygen through a nasal tube and take his blood pressure.
5. If the systolic is above 160 mmHg administer nitroglycerin in capsule or spray form as an emergency medication. Nitrates relieve the strain on the heart, thereby improving the oxygen supply to the cardiac muscle. Nitrate preparations are fast-acting and direct!

Caution:

People with low blood pressure must not be administered nitrate preparations. As they dilate the blood vessels, blood pressure may drop, resulting in circulatory collapse.

There is a high risk of heart attack after angina pectoris, especially the first episode; the reason being that if a coronary vessel becomes blocked, the oxygen supply to the myocardial tissue behind is cut off, resulting in a heart attack, about which we will go into greater detail in the next issue.

So, in the event of acute pain between the lower jaw and belly button, think of the heart. If in doubt, treat your patient for angina pectoris or a heart attack.

Always seek medical advice – even if your patient feels better soon after administering the nitroglycerin! Angina pectoris is always a warning signal. Cardiac emergencies should always receive intensive medical care.