



# CHEST PAIN - IS IT ANGINA ?

## History

Angina is an important clinical diagnosis which can be established by asking the following questions:

- Where is the pain?
- Where does it go?
- What does it feel like?
- What brings it on?
- What do you do when you have the pain?

In many patients the answers will enable a distinction to be made between angina and other causes of chest pain. However if in doubt, further evaluation for example by exercise testing is strongly advised.

## Site

Typically the pain of angina is retrosternal and spreads across the chest. The pain is only rarely localised – this is usually muscular chest wall pain.

## Radiation

The pain of angina usually radiates out from the chest, the commonest sites of radiation include:

- The neck and throat causing a feeling of choking, strangulation or suffocation.
- The jaw and maybe interpreted as toothache or problems with dentures.
- Down one or both arms: this is usually felt down the inside, under the axilla to the inner two fingers. By contrast muscular pain usually runs over the shoulder and down the outside of the arm.
- Other sites include the abdomen, the back and areas of previous injury. Angina is often misinterpreted as indigestion.

## Character

The pain is often constricting, "band" or "vice like". The patient may place his/her hand across the chest or clench the fist to emphasise this point. It usually builds up rather than being maximal at its onset. However tightness is often perceived as breathlessness: ask what this means – is it a tightness or winded feeling? Sharp, knife-like pain of sudden onset is not usually cardiac in origin.

## Precipitants

Angina occurs when there is an increase in oxygen demand that cannot be met by supply. Precipitants include:

- Exertion particularly climbing stairs or an incline
- Emotion, especially anger and anxiety
- A large meal as cardiac output rises by 20%
- Cold, windy weather
- Exciting programmes on TV – so called 'match of the day' angina
- Vivid dreams particularly if these are frightening
- Sexual intercourse, especially if this is extra-marital or with a new partner

These may be additive (eg, walking the dog in cold, windy weather after a meal). Typically, the pain lasts 3-5 minutes. If it lasts more than fifteen minutes patients should seek immediate help by phoning 999 for the emergency services as it may be a heart attack.

### **Relief**

Slowing the heart rate by means of resting (or relaxation) reduces demand and relieves the pain. Glyceryl trinitrate (GTN) produces more rapid relief (but may also relieve pain associated with gallstones and oesophageal reflux).

### **Specific Types of Angina**

#### **Unstable Angina**

The term unstable angina describes either the onset of typical angina (within the last two to four weeks); that occurring at rest or a changing pattern with increasing frequency and/or severity for no obvious reason. Each of these suggests an unstable atheromatous plaque in the coronary arteries – urgent referral is recommended.

#### **Variant Angina**

This is also known as Prinzmetal's angina and is caused by spasm of a coronary artery. It usually occurs at rest and in response to cold. Often it occurs at a consistent time of day, usually at night or early in the morning. It is distinguished from other forms of angina by the presence of ST segment elevation on the ECG during periods of ischaemia (in contrast to the more usual ST segment depression seen in other forms of angina). It can occur in patients who also have coronary artery disease and stable angina and angina with syncope.

#### **Tobacco Angina**

This is a pain on smoking cigarettes or, rarely, cigars.

#### **Angina with syncope**

This is more common in the elderly and points to either severe coronary artery disease or possibly to aortic valve stenosis.

### **Further reading**

1. Jackson, G., Angina (3rd edition) Martin Dunitz, London, 2000
2. Schofield, PM (Ed) Angina in Clinical Practice, Martin Dunitz, London, 1999