
HISTORY TAKING IN CARDIOVASCULAR SYSTEM

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INTRODUCTION

- Introduce yourself – name / purpose
- Confirm patient details – name / DOB
- Explain the need to take a history
- Gain consent
- Ensure the patient is comfortable

CONTENTS

- Presenting complaint in patient's own verbatim
- History of presenting complaint
- Past medical history
- Drug history
- Family history
- Social history
- Systemic enquiry
- Provisional Diagnosis based on history

CHEST PAIN

- Nature (crushing, burning, aching, stabbing etc.).
- Exact location.
- Any radiation.
- Severity (scored out of 10).
- Mode and rate of onset. What was the patient doing at the time?
- Change in the pain over time (and current score out of 10).
- Duration (if now resolved).
- Exacerbating factors (particularly, is it affected by respiration or movement?).
- Relieving factors (including the use of GTN).
- Associated symptoms (nausea, vomiting, sweating, belching etc

ANGINA

- This is usually due to **coronary artery disease** but can also be caused by other cardiac diseases such as aortic stenosis or hypertrophic cardiomyopathy.
- Angina comes from the Latin for choking and this is often what the patient describes.
- As the brain cannot interpret pain from the heart per se, it is felt over the central part of the anterior chest and can radiate up to the jaw, shoulder, or down the arms or even to the umbilicus.
- This pattern is due to the common embryological origins of the heart and these parts of the body.

CONTD...

- In true angina, you can expect the following features:
- Retrosternal.
- Crushing, heaviness or like a tight band.
- Worse with physical or emotional exertion, cold weather and after eating.
- Relieved by rest and nitrate spray (within a couple of minutes).
- Not affected by respiration or movement.
- Sometimes associated with breathlessness.
- In addition, patients classically clench their right fist and hold it to their chest when describing the pain.
- In patients with known angina, a change in the nature of the symptom is important. Ask them how much exercise they can do before feeling the discomfort and whether this has changed.

MYOCARDIAL INFARCTION

- Patients will know this as a heart attack.
- The pain is similar to that of angina but much more severe, persistent (despite GTN spray) and associated with nausea, sweating, and vomiting.
- Patients may also describe a feeling of impending doom or death *angor animi*.

PERICARDITIS

- The commonest causes are viral or bacterial infection, MI, or uraemia.
- Constant retrosternal soreness.
- Worse on inspiration (pleuritic).
- Relieved slightly by sitting forwards.
- Not related to movement or exertion.

OESOPHAGEAL SPASM

- Often mistaken for MI or angina.
- A severe, retrosternal burning pain.
- Onset often after eating or drinking.
- May be associated with dysphagia.
- May have a history of dyspepsia.
- May be relieved by GTN as this is a smooth muscle relaxant (hence the confusion with angina) but GTN will take up to 20 minutes to relieve this pain whereas angina is relieved within a few minutes.
- Gastro-oesophageal reflux disease (heartburn)
- Retrosternal, burning pain.
- Relieved by antacids, onset after eating.

DISSECTING AORTIC ANEURYSM

- Must be differentiated from an MI as thrombolysis here may prove fatal.
- Severe tearing pain.
- Felt posteriorly classically between the shoulderblades.
- Persistent, most severe at onset.
- Patient is usually hypertensive and marfanoid

PLUERITIC PAIN

- May be caused by a wide range of respiratory conditions, particularly pulmonary embolus and pneumothorax.
- Sharp pain, worse on inspiration and coughing.
- Not central, may be localized to one side of the chest.
- No radiation.
- No relief with GTN.
- Associated with breathlessness, cyanosis etc.

MUSCULOSKELTAL PAIN

- May be caused by injury, fracture, chondritis, etc.
- Will be localized to a particular spot on the chest and worsened by movement and respiration.
- May be tender to palpation.
- Tietze's syndrome is costochondritis (inflammation of the costal cartilages) at ribs 2, 3, and 4. Will be associated with tender swelling over the costo-sternal joints.

DYSPNOEA

- Dyspnoea is an abnormal awareness of one's breathing
- Quantify the symptom so as to gauge its severity
- The New York Heart Association (NYHA) has devised a classification of breathlessness .
- In practice, this is only used in clinical trials and it makes more sense to measure the functional result of breathlessness

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- ASK ABOUT
 - How far can the patient walk on the flat before they have to stop (march tolerance)?
 - What about stairs and hills, can they make it up a flight?
 - Are they sure that they stop due to breathlessness or is it some other reason (arthritic knees for example)?
 - Has the patient had to curtail their normal activities in anyway?

NYHA CLASSIFICATION

- I - nil at rest, some on vigorous exercise.
- II - nil at rest, breathless on moderate exertion.
- III- mild breathlessness at rest, worse on mild exertion.
- IV- significant breathlessness at rest and worse on even slight exertion (the patient is often bed-bound).

ORTHOPNEA

- This is breathlessness when lying flat.
- Ask how many pillows does the patient sleep with and has this changed
- Some patients may describe having to sleep sitting upright in a chair.
- If the patient sleeps with a number of pillows, ask why.
- Are they breathless when they lie down or is it for some other reason?

PAROXYSMAL NOCTURNAL DYSPNEA

- As the name suggests, this is episodes of breathlessness occurring at night
- Sufferers will experience waking in the night spluttering and coughing they find they have to sit up or stand and many go to the window for fresh air in an attempt to regain their normal breathing.
- Do they wake up in the night coughing and trying to catch their breath?
- Ask as much detail as you can including how often and how badly the symptom is disturbing the patient's sleep cycle.

EDEMA

- In ambulant patients, fluid will collect at the ankles and cause swelling. **Ask:**
- How long has this been going on for?
- Is it worse at any particular time of day? (Typically cardiac oedema is worse toward the evening and resolved somewhat overnight as the oedema redistributes itself.)
- Exactly how extensive is the swelling? Is it confined to the feet and ankles or does it extend to the shin, knee, thigh, or even the buttocks, genitalia, and anterior abdominal wall?
- Is there any evidence of abdominal swelling and ascites?

PALPITATIONS

- Palpitations is an awareness of one's own heart beat.
- Patients may be unfamiliar with the term altogether and, instead, describe the heart jumping or missing a beat.
- **Attempt to determine:**
- When did the sensation start and stop?
- How long did it last?
- Did it come on suddenly or gradually?
- Did the patient blackout? If so, for how long?

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- Was the heart beat felt as fast, slow, or some other pattern?
 - Was it regular or irregular?
 - It is useful at this stage to ask the patient to tap out what they felt on their knee or a nearby table.
 - What was the patient doing when the palpitations started?
 - Is there any relationship to eating or drinking (particularly tea, coffee, wine, chocolate)?
 - Could it have been precipitated or terminated by any medication?

SYNCOPE

- This is a faint or a swoon.
- You must determine whether there truly was a loss of consciousness and not simply the feeling that the patient was about to faint (pre-syncope).
- In particular, can the patient remember hitting the floor? If there really was a loss of consciousness, attempt to gain a collateral history from witnesses. Determine also:
 - Was the onset gradual or sudden?
 - How long was the loss of consciousness?
 - What was the patient doing at the time? (Standing, urinating, coughing.)

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- Were there any preceding or associated symptoms such as chest pain, palpitations, nausea, sweating (see previously)?
 - Was there any relationship to the use of medication?
(Antihypertensives and use of GTN-spray are common culprits.)
 - When the patient came round, were there any other symptoms remaining?
 - Was there any tongue-biting or urinary or faecal incontinence?
 - Was there any motor activity during the unconscious episode?
 - How long did it take for the patient to feel back to normal?

CLAUDICATION

- In true claudication, the patient describes the pain that:
- Feels like a tight cramp in the muscle.
- Usually occurs in the calf, thigh, buttock, and foot.
- Appears only on exercise.
- Disappears at rest.
- May also be associated with numbness or pins- and-needles on the skin of the foot
- Attempt to quantify wherever possible.
- In this case, determine the claudication distance that is how far the patient is able to walk before the pain starts.

REST PAIN

- A similar pain to claudication, but this comes on at rest and is usually continuous a sign of severe ischaemia. The patient may describe:
- Continuous, severe pain in the calf, thigh, buttock, or foot.
- Aching in nature.
- Lasts through the day and night.
- Exacerbations of the pain may wake the patient from sleep.
- The patient may find slight relief by hanging the affected leg off the side of the bed.

OTHER HISTORY

- Cardiac risk factors
- Age
- Gender: risk in males > females
- Obesity:
- Smoking: Quantify in pack-years.
- Hypertension: find when it was diagnosed? How was it treated?
Is it being monitored?

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- Hypercholesterolaemia: increasingly, patients will know about this, some will even know their last reading. When was it diagnosed? How is it treated and monitored?
 - Diabetes: what type? When was it diagnosed? How is it treated and monitored? What are the usual glucose readings?
 - Family History: particularly 1st degree relatives who have had cardiovascular events/diagnoses before the age of 60

PAST MEDICAL HISTORY

- Ask about:
- Angina if they have a GTN spray, ask how often they need to use it and whether this has changed significantly recently.
- MI when? How was it treated?
- Ischaemic heart disease how was the diagnosis made? Any angiograms? What other investigations has the patient had?
- Cardiac surgery bypass? How many arteries?
- AF or other rhythm disturbance what treatment? On warfarin?
- Rheumatic fever.
- Endocarditis.
- Thyroid disease.

DRUG HISTORY

- Take particular note of cardiac medication and attempt to assess compliance and the patient's understanding of what the medication does.

SOCIAL HISTORY

- As in any other case, take note of the patient's employment both how the disease has affected their ability to work and bear in mind how any cardiac diagnosis may affect the patient's employability.

THANK YOU

