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Cardiovascular Examination of a Volunteer

Practical 07 / Supervised clinical examination

Aim

Take a brief cardiovascular history and demonstrate the normal inspection, palpation and auscultation sequence.

Principle

Pulse, blood pressure, neck veins, precordial impulses and sounds represent complementary aspects of cardiovascular function.

Materials and Requirements

- Consenting volunteer or simulator
- Stethoscope, BP device and observation sheet

Procedure

1. Ask about relevant symptoms and obtain permission. Check pulse, blood pressure, peripheral signs and oedema where appropriate.
2. Explain each area that will be examined and use hand hygiene and suitable draping. Record pulse rate, rhythm and blood pressure with posture and appropriate cuff information.
3. Position the volunteer comfortably and inspect the neck veins with the instructor.
4. Position the upper body at about 30 to 45 degrees initially and use tangential light. Ask the instructor to help distinguish visible venous pulsation from the arterial pulse before describing its level.

Continue with step 5 on the next page.

Procedure Continued

Cardiovascular Examination of a Volunteer

5. Inspect and gently palpate the precordium, locating an apex impulse when palpable and checking for additional impulses.
6. Locate the apex area by intercostal space and relation to the midclavicular line. Compare apex character and parasternal movement and feel gently for a palpable thrill when indicated.
7. Listen systematically at standard valve areas and time heart sounds with a peripheral pulse if needed.
8. Use a consistent order through aortic, pulmonary, tricuspid and mitral listening areas. Identify S1 and S2 and record the location, timing and quality of any additional sound.
9. Review bases and peripheral oedema with supervision where appropriate. Present vital signs, apex position, heart sounds and significant findings in sequence and thank the volunteer.

Precautions

- Palpate only one carotid at a time if taught and indicated.
- Keep exposure limited and re-cover the volunteer promptly.

Observations and Interpretation

Cardiovascular Examination of a Volunteer

Observations and Record

Item	What to record	What it tells you
Peripheral examination	Pulse, BP and oedema	Reports systemic findings
Precordium	Apex position and impulses	Describes location and character
Auscultation	S1, S2 and added sounds	Document the position where each was heard

Worked Example

In a simulated normal adult, S1 precedes the palpable carotid upstroke and S2 follows systole. Record which site and position helped identify each sound.

Result and Interpretation

Present the normal findings and mention areas where the signal was limited by examination conditions.

Viva Questions and Answers

What does S1 mark?

Closure of the atrioventricular valves around the onset of systole.

Why relate a sound to timing?

It helps distinguish systolic from diastolic findings.

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