

A Client Reports Chest Pain That Occurs When Playing Tennis But Resolves When Sitting Down. The Nurse

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Understanding chest pain in a client, especially one associated with physical activity like tennis, requires a thorough and systematic approach. The nurse plays a pivotal role in assessing, identifying potential causes, and guiding appropriate interventions. This article explores the possible underlying conditions, assessment strategies, differential diagnoses, and management principles relevant to a client experiencing chest pain that is activity-induced but resolves with rest.

Initial Assessment and History Taking

Importance of a Comprehensive History

A detailed history provides clues about the nature, duration, and triggers of chest pain. Key points include:

- **Onset and Duration:** When did the pain start? How long does it last?
- **Character of Pain:** Is it sharp, dull, crushing, burning, or pressure-like?
- **Location and Radiation:** Where is the pain? Does it radiate to the jaw, neck, shoulder, or arm?
- **Precipitating Factors:** Does activity, emotional stress, or other factors trigger the pain?
- **Relieving Factors:** Does sitting, rest, or medications alleviate symptoms?
- **Associated Symptoms:** Shortness of breath, sweating, nausea, dizziness, palpitations?

- **Medical History:** Prior cardiac issues, hypertension, hyperlipidemia, diabetes, respiratory or musculoskeletal conditions?
- **Medication History:** Use of antihypertensives, statins, or other relevant drugs?

Physical Examination

A focused physical exam assesses vital signs and examines the cardiovascular and respiratory systems:

- **Vital Signs:** Blood pressure, heart rate, respiratory rate, oxygen saturation.
- **Cardiovascular Examination:** Heart sounds, murmurs, jugular venous distention.
- **Respiratory Examination:** Breath sounds, signs of wheezing or crackles.
- **Musculoskeletal Exam:** Chest wall tenderness, range of motion, palpation for tenderness or swelling.
- **Additional Observations:** Skin changes, cyanosis, diaphoresis.

Potential Underlying Causes of Chest Pain Related to Exercise

Understanding the differential diagnoses helps guide further investigations and management. The main categories include cardiac, respiratory, musculoskeletal, gastrointestinal, and psychological causes.

Cardiac Causes

Chest pain during physical exertion often raises concern about cardiac ischemia or other heart conditions:

- **Stable Angina:** Chest discomfort due to myocardial ischemia triggered by increased oxygen demand during exercise, relieved by rest.
- **Myocardial Infarction:** Though less typical if pain resolves quickly, it requires urgent assessment.

- **Pericarditis:** Usually causes sharp pain that worsens with breathing or lying down, but can sometimes be exercise-related.
- **Arrhythmias:** Abnormal heart rhythms may cause chest discomfort, especially during exertion.

Respiratory Causes

Respiratory conditions may mimic or contribute to chest pain:

- **Asthma or Exercise-Induced Bronchospasm:** Shortness of breath and chest tightness during activity.
- **Pleuritis or Pleurisy:** Inflammation of pleura causing sharp pain that worsens with breathing.
- **Pulmonary Embolism:** Sudden chest pain with dyspnea; less likely if pain resolves quickly with sitting.

Musculoskeletal Causes

Musculoskeletal issues are common, especially with activity:

- **Costochondritis:** Inflammation of costal cartilage causing localized pain, often reproducible on palpation.
- **Muscle Strain:** Overuse or injury from repetitive movements during tennis.
- **Rib Fractures or Injuries:** Less common but possible with trauma.

Gastrointestinal Causes

Gastroesophageal reflux disease (GERD) and other GI issues may mimic cardiac pain:

- **GERD:** Acid reflux causing burning chest pain, often worse after meals or lying down.
- **Esophageal Spasm:** Pain similar to angina, triggered by eating or

exertion.

Psychological Causes

Anxiety or panic attacks can produce chest discomfort:

- Hyperventilation, palpitations, and chest tightness.

Diagnostic Investigations

To confirm the diagnosis, the nurse collaborates with the healthcare team to order and interpret relevant tests:

- **Electrocardiogram (ECG):** Detects ischemic changes, arrhythmias.
- **Cardiac Enzymes:** Troponins to rule out myocardial infarction.
- **Chest X-ray:** Looks for pulmonary or skeletal causes.
- **Stress Testing:** Exercise treadmill test to evaluate for exertional ischemia.
- **Echocardiography:** Assess cardiac structure and function.
- **Laboratory Tests:** Lipid profile, blood glucose, complete blood count.

Differential Diagnosis of Chest Pain That Resolves with Sitting

The pattern of pain occurring during activity and resolving at rest narrows the differential diagnosis:

1. **Stable Angina:** Classic presentation; predictable and relieved with rest.
2. **Musculoskeletal Pain:** Reproducible on palpation; not typically relieved by sitting but may be alleviated with rest.

3. **Gastrointestinal Reflux:** Often occurs after exertion or meals; relieved by sitting upright or antacids.
4. **Psychological Factors:** Anxiety-induced chest discomfort that improves with relaxation or cessation of activity.

Management Principles and Interventions

The nurse's role involves immediate assessment, providing patient education, and coordinating care.

Immediate Nursing Actions

- Ensure the client is in a safe environment.
- Monitor vital signs continuously.
- Assess the severity and characteristics of pain.
- Determine if emergency services are needed (e.g., chest pain with diaphoresis, hypotension, or syncope).

Patient Education

- Advise on recognizing symptoms of serious cardiovascular events.
- Encourage reporting of recurrent or worsening symptoms.
- Educate about lifestyle modifications, including smoking cessation, healthy diet, and regular exercise.

Collaborative Management

- Facilitate diagnostic testing as ordered.
- Administer medications if prescribed (e.g., nitrates, beta-blockers).
- Support lifestyle modifications and adherence to treatment plans.
- Provide emotional support and address anxiety if present.

Long-term Follow-up

- Regular monitoring of cardiovascular risk factors.
- Reinforce medication compliance.
- Coordinate with dietitians, physiotherapists, and other healthcare providers.

Conclusion

A client reporting chest pain that occurs during tennis and resolves upon sitting highlights the importance of a comprehensive assessment to differentiate between benign and serious causes. The nurse's role encompasses meticulous history taking, physical examination, understanding the pattern of symptoms, and collaborating with the healthcare team for appropriate investigations. Recognizing the characteristics of exertional chest pain—particularly its relation to activity and relief with rest—guides the clinician toward diagnoses like stable angina. Prompt identification and management are crucial to prevent potential complications such as myocardial infarction. Through patient education, lifestyle modification support, and ongoing monitoring, nurses contribute significantly to optimizing cardiovascular health and ensuring safety.

References:

- Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 14th Edition.
- American Heart Association. (2022). Chest Pain and Heart Attack.
- National Institute for Health and Care Excellence (NICE). (2016). Chest pain in over 16s: assessment and initial management.
- Lewis's Medical-Surgical Nursing, 11th Edition.

Frequently Asked Questions

What could be the cause of chest pain occurring during tennis but resolving when sitting down?

It may indicate exertional angina or other cardiac issues triggered by physical activity, which resolves with rest. Other possibilities include musculoskeletal strain or gastroesophageal reflux, but cardiac causes should be prioritized.

What initial assessments should the nurse perform for a client reporting these symptoms?

The nurse should assess vital signs, inquire about the nature and duration of the pain, associated symptoms (like shortness of breath or dizziness), and the client's medical history, especially cardiac risk factors.

When should the nurse advise the client to seek immediate medical attention?

If the client experiences chest pain that is severe, persistent, accompanied

by symptoms like shortness of breath, sweating, dizziness, or radiating pain, they should seek emergency care immediately.

What diagnostic tests might be ordered to determine the cause of chest pain in this client?

Tests such as an electrocardiogram (ECG), stress test, echocardiogram, or cardiac enzymes may be ordered to evaluate for ischemia or other cardiac conditions.

How can the nurse educate the client about managing their symptoms?

The nurse can advise the client to avoid strenuous activity until evaluated, recognize warning signs of cardiac distress, adhere to prescribed treatments, and seek prompt medical attention if symptoms recur or worsen.

What lifestyle modifications should the nurse recommend to the client?

Encouraging a heart-healthy diet, regular moderate exercise, smoking cessation, weight management, and stress reduction can help reduce cardiac risk factors.

Why might the chest pain be related to physical activity rather than rest?

Physical exertion increases the heart's demand for oxygen, which can reveal underlying coronary artery blockages or ischemia, causing pain during activity that subsides with rest.

What is the significance of the pain resolving when the client sits down?

It suggests that the pain may be exertional and related to activity-induced myocardial ischemia, which improves with rest, a hallmark of stable angina.

How should the nurse document and follow up on this client's condition?

The nurse should document the details of the symptoms, assessments performed, and any advice given, and ensure the client understands the importance of follow-up with a healthcare provider for further evaluation and management.

Additional Resources

A Client Reports Chest Pain That Occurs When Playing Tennis But Resolves When Sitting Down: The Nurse's Role in Evaluation and Management

Introduction

Chest pain is a common yet complex presenting complaint in clinical practice, often prompting urgent evaluation due to its potential association with life-threatening conditions such as myocardial infarction, angina, or pulmonary embolism. When a client reports chest pain that occurs during physical activity—specifically tennis—and resolves with rest (i.e., sitting down), it necessitates a thorough, systematic investigation. Nurses play a pivotal role in early recognition, assessment, and appropriate referral to ensure prompt diagnosis and management.

This article explores the clinical features, differential diagnosis, assessment strategies, and the nurse's role in managing clients presenting with exertional chest pain that subsides with rest. It emphasizes evidence-based approaches, highlights key considerations, and provides guidance for nurses involved in the initial evaluation.

Understanding the Clinical Presentation

Characterization of Chest Pain

When evaluating a client who reports chest pain associated with tennis activity, it is essential to gather detailed symptom data:

- Timing and Duration: When does the pain occur? How long does it last? Does it resolve quickly upon resting?
- Nature and Quality: Is the pain sharp, dull, pressure-like, or burning?
- Location and Radiation: Is the pain central, left-sided, or radiating to the arm, neck, jaw, or back?
- Associated Symptoms: Shortness of breath, diaphoresis, nausea, palpitations, dizziness, or syncope.
- Triggers and Relievers: Is the pain specifically triggered by physical exertion? Does sitting or resting relieve the pain?
- Impact of Activity: Does the pain limit activity, and if so, how?

Significance of Chest Pain with Exercise and Rest

The pattern—chest pain occurring during exertion and resolving with rest—is characteristic of stable angina pectoris. However, other conditions may mimic this presentation, including:

- Myocardial ischemia due to coronary artery disease

- Musculoskeletal pain from strain or injury
- Gastrointestinal causes, such as gastroesophageal reflux
- Respiratory issues, like asthma or pleuritis
- Anxiety or panic attacks

Distinguishing among these requires comprehensive assessment.

Differential Diagnosis

Cardiovascular Causes

- Stable Angina Pectoris: Classic exertional chest pain relieved by rest or nitroglycerin; caused by myocardial oxygen supply-demand mismatch.
- Unstable Angina: New-onset or change in pattern of angina; may occur at rest.
- Myocardial Infarction: Persistent pain not relieved by rest; associated with other signs like diaphoresis, nausea.
- Coronary Vasospasm (Prinzmetal's Angina): Occurs unpredictably, often at rest but can be exertional.
- Pericarditis: Pleuritic chest pain that worsens with breathing or position changes.

Non-Cardiac Causes

- Musculoskeletal: Strain from tennis strokes, muscle pulls, or costochondritis.
- Gastrointestinal: Esophageal reflux or spasm.
- Pulmonary: Pulmonary embolism, asthma, or pleuritis.
- Psychogenic: Anxiety or panic disorders.

The Nursing Assessment: A Comprehensive Approach

Initial History Taking

A detailed history is critical, focusing on:

- Onset and duration of chest pain
- Activity correlation: Specifically, tennis play
- Pain characteristics
- Relieving and aggravating factors
- Associated symptoms
- Past medical history: Cardiovascular risk factors (hypertension, diabetes, hyperlipidemia), previous cardiac events
- Family history of cardiac disease
- Lifestyle factors: Smoking, diet, exercise habits

Physical Examination

A thorough physical exam includes:

- Vital signs: Blood pressure, heart rate, oxygen saturation
- Cardiovascular exam: Heart sounds, rhythm, murmurs
- Respiratory exam: Breath sounds, signs of respiratory distress
- Musculoskeletal assessment: Chest wall tenderness, muscle strain
- Signs of systemic illness: Fever, diaphoresis, cyanosis

Risk Stratification

Using tools such as the Diamond-Forrester criteria or ACCF/AHA guidelines helps categorize the client's risk level for coronary artery disease, guiding further testing.

Diagnostic Workup

Non-Invasive Testing

- Electrocardiogram (ECG): To detect ischemic changes, arrhythmias
- Stress testing: Exercise stress test or pharmacologic stress testing to assess myocardial perfusion
- Echocardiography: To evaluate cardiac function and wall motion
- Blood tests: Cardiac enzymes (troponins), lipid profile, blood glucose

Advanced Diagnostics

If initial tests suggest ischemia or if the client has high-risk features, referral for:

- Coronary angiography
- Computed tomography angiography (CTA)

The Nurse's Role in Management and Follow-up

Immediate Care

- Monitoring: Continuous ECG monitoring if indicated
- Symptom management: Administering oxygen, nitroglycerin (if prescribed), and analgesics
- Patient reassurance: Explaining the assessment process and reducing anxiety

Education and Lifestyle Modification

- Risk factor modification: Smoking cessation, diet, exercise
- Medication adherence: Antiplatelets, statins, antihypertensives
- Recognizing warning signs: Unrelieved chest pain, worsening symptoms
- Activity adjustments: Gradual increase in activity levels, avoiding

strenuous exercise until cleared

Coordination of Care

- Referral: To cardiology or emergency services if unstable angina or other high-risk features are present
- Follow-up planning: Ensuring the client understands the importance of ongoing evaluation and lifestyle changes

Special Considerations in Client Management

Psychological Impact

Chest pain can cause significant anxiety; nurses should assess mental health status and provide emotional support.

Cultural and Social Factors

Consider cultural beliefs about health and illness, and tailor education accordingly.

Legal and Ethical Aspects

Obtain informed consent before diagnostic procedures; respect client autonomy.

Case Reflection: Integrating Evidence-Based Practice

In a typical case where a client reports chest pain during tennis that resolves with sitting, the nurse's systematic approach involves:

- Recognizing the pattern as potentially cardiac but ruling out other causes
- Conducting a detailed assessment to identify risk factors
- Initiating appropriate diagnostic testing
- Providing education and reassurance
- Ensuring prompt referral for specialized care if indicated

This comprehensive approach aligns with best practices and ensures patient safety.

Conclusion

Chest pain that occurs during physical activity such as tennis but resolves with rest is a clinical presentation that warrants thorough evaluation due to its potential association with coronary artery disease. Nurses are integral

to early detection, risk stratification, patient education, and coordination of care. By employing a structured assessment and evidence-based practices, nurses can facilitate timely diagnosis, optimize management, and improve outcomes for clients experiencing exertional chest pain. Continued education and awareness are vital in enhancing nursing competencies in cardiovascular assessment and holistic patient care.

References

1. American Heart Association. (2019). Guidelines for the Management of Patients with Stable Ischemic Heart Disease. AHA Journal.
2. National Institute for Health and Care Excellence (NICE). (2016). Chronic Coronary Syndrome: Diagnosis and Management. NICE Guideline.
3. McPhee, S. J., & Papadakis, M. (2017). Current Medical Diagnosis & Treatment. 56th Edition.
4. Jarvis, C. (2016). Physical Examination and Health Assessment. 8th Edition.
5. World Health Organization. (2019). Cardiovascular Diseases Fact Sheet.

Note: Nurses should always adhere to local protocols and collaborate with multidisciplinary teams for comprehensive care planning.

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