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Tachycardia Amongst Subjects Recovering from Severe Acute Respiratory Syndrome (SARS): A Prospective Case Study

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LAU ET AL.: Tachycardia Amongst Subjects Recovering from Severe Acute Respiratory Syndrome (SARS): A Prospective Case Study. Background: SARS is a new infection in humans with unknown medium or long-term complication. Palpitation in the form of tachycardia is common amongst patients recovering from SARS. We studied the extent and possible cause of tachycardia in these patients. **Methods:** Prospective cross-sectional case series of patients treated in Princess Margaret Hospital in Hong Kong recovering from SARS who had resting heart rate of more than 90 beats per minute (BPM) at follow up about 2 months from onset of illness was recruited for assessment of heart rate and rhythm, cardiac function, pulmonary function, laboratory tests, Quality of Life score and Functional assessment. Patients were followed up in the out-patient clinic for at least 1 year after discharge. **Results:** Fifteen out of 100 consecutive patients were eligible for study. Median mean heart rate was 82 BPM (range 70-91) with maximum heart rate ranging from 114 to 163 BPM. Sinus tachycardia was recorded only in daytime. Signal average ECG, heart rate variability, and echocardiography were normal. Two patients had significantly impaired spirometric indices while all but one had normal diffusion capacity study. Mean haemoglobin level was 13.4 gm/l (10.6-14.9). Troponin I, thyroid function, arterial blood gases, C reactive protein and liver function tests were normal. Quality of Life (QOL) score was low especially in the psychological well being domain. Monitored Functional Task Evaluation (MFTE) score demonstrated mild functional difficulties in 10 patients (score 17.6-19.7). No symptom of palpitation was present at follow up after 1 year. **Conclusion:** No significant arrhythmia or cardiac abnormality was identified. Sinus tachycardia on exertion in patients recovering from SARS is possibly attributed to physical deconditioning and contributed by psychological impairment. (J HK Coll Cardiol 2005;13:59-67)

Severe Acute Respiratory Syndrome, Tachycardia

摘要

背景：嚴重急性呼吸系統綜合症（SARS）是人類一種新的傳染性疾病，它中期及長期的併發症不明。SARS痊癒病人往往會出現由於心動過速而產生的心悸。我們研究這些病人產生心動過速的可能原因和程度。**方法：**採用前瞻性病例跟進研究，收集在香港瑪嘉烈醫院接受治療的SARS的病人資料，他們發病後二月的靜息心率超過每分鐘90次。評價他們的心率和心律、心功能、肺功能、實驗室檢查、生活質量評分和功能評價。這些病人在出院後在門診治療接受一年以上的隨訪。**結果：**在100名續貫病例中共有15名適合研究。中位心率為每分鐘82次（70-91次），最大心率從每分鐘114次至163次。僅在白天記錄到竇性心動過速。平均心電圖信號，心率的可變度、和超聲心動圖均是正常的。有二位病人出現了明顯的肺活量損害，而其中一位未達到了正常彌散容積。平均血紅蛋白值為13.4 gm/l（10.6-14.9）。肌鈣蛋白、甲狀腺功能、動脈血氣、C反應蛋白和肝功能均正常。在那些心理上有陰影的病人，生活質量評分分值就很低。在10位病人中，監控功能性任務評估顯示出輕微功能性困難（分值为17.6-19.7）。一年後病人沒有出現心悸的症狀。**結論：**在這些病人中沒有發現明顯的心律失常或心功能異常。竇性心動過速在SARS痊癒病人中的出現，原因可能在於身體的去適應和心理的損害。

關鍵詞：嚴重急性呼吸系統綜合症 心動過速

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