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CLINICAL RESEARCH

Return to work after acute ST-segment elevation myocardial infarction in the modern era of reperfusion by direct percutaneous coronary intervention

Reprise du travail après infarctus du myocarde à l'ère de la reperfusion moderne par angioplastie primaire

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KEYWORDS
Myocardial infarction;
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Stent;
Return to work;
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Summary
Background. — Previous studies have evaluated return to work after acute ST-segment elevation myocardial infarction (STEMI) treated medically, after bypass surgery or after percutaneous coronary intervention (PCI) for stable coronary artery disease. However, there are few data regarding return to work after acute STEMI treated by direct PCI.
Aims. — To analyse the factors influencing return to work after STEMI treated by direct PCI.
Methods. — Two hundred consecutive patients who underwent direct PCI for acute STEMI and who were employed at the time of their STEMI were studied. Stents were used in 94% of patients and glycoprotein IIb/IIIa inhibitors in 77%.
Results. — Among the 200 patients, 152 (76%) patients returned to work and 48 (24%) did not. Patients who did not return to work did not differ from those who returned to work in terms of time from onset of chest pain to PCI, STEMI location, left ventricular function, extent of vessel disease, PCI technique and success, completeness of revascularization, duration of hospital stay, intrahospital complications and performance of cardiac rehabilitation. Multivariable

Abbreviations: NRTW, did not return to work (group); PCI, percutaneous coronary intervention; RTW, returned to work (group); STEMI, ST-segment elevation myocardial infarction; TIMI, thrombolysis in myocardial infarction.

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analysis showed that older age, daytime onset of chest pain, manual labour, rapid call-out of the emergency medical team, unmarried status and a limited number of risk factors were independent predictors of non-return to work.
Conclusion. — Age, sociopsychological and occupational factors appear to be the strongest predictors of return to work after STEMI treated by direct PCI. Clinical and procedural factors as well as cardiac rehabilitation appear to have no impact on return to work in this subset of patients.

MOTS CLÉS
Infarctus du myocarde ;
Angioplastie primaire ;
Stent coronaire ;
Reprise du travail ;
Réadaptation cardiaque

Résumé
Contexte. — Des études antérieures ont évalué la reprise du travail après infarctus du myocarde (IDM) traité médicalement ainsi que celle des patients coronarien stables après pontage ou angioplastie. Très peu de données sont en revanche disponibles chez les patients traités par angioplastie primaire pour IDM.
Objectif. — Analyser les facteurs de reprise du travail chez les patients après IDM traités par angioplastie primaire.
Méthodes. — Deux cent patients ayant bénéficié d'une angioplastie primaire pour IDM et ayant une activité professionnelle au moment de leur accident coronarien ont été inclus. Le taux de stenting était de 94 % et 77 % des patients ont reçu des antiGP IIb/IIIa.
Résultats. — Parmi les 200 patients, 152 (76 %) ont repris le travail (RT+) et 48 (24 %) ne l'ont pas repris (RT). Le groupe RT— ne différait pas du groupe RT+ vis à vis du délai début de la douleur-angioplastie, du siège de l'IDM, de la fraction d'éjection, de l'étendue des lésions coronaires, de la technique et du succès de l'angioplastie, du degré plus ou moins complet de revascularisation, de la durée de séjour hospitalier, de la survenue de complications et de la réalisation d'un programme de rééducation. L'analyse multivariée a montré qu'un âge plus avancé, la survenue de l'IDM en période diurne, une activité professionnelle manuelle, un délai d'appel médical par le patient court, un statut de célibataire et un plus petit nombre de facteurs de risque étaient des facteurs indépendants de non-reprise du travail.
Conclusion. — Ainsi, l'âge, les facteurs sociopsychologiques et professionnels apparaissent comme les facteurs prédictifs de reprise du travail les plus importants après IDM traité par angioplastie primaire. Les facteurs cliniques et ceux liés à la technique d'angioplastie ainsi que la réalisation d'un programme de rééducation paraissent ne pas avoir d'impact significatif sur la reprise du travail chez ce groupe de patients.

Background

Acute ST-segment elevation myocardial infarction (STEMI) is a severe cardiac event. The rate and timing of return to work after STEMI are important, as there are consequences in terms of the quality of life of the individual patient as well as economic consequences for both the individual and society [1—3]. Previous studies have evaluated return to work after STEMI treated medically [1,4—7], as well as after bypass surgery and after percutaneous coronary intervention (PCI) for stable coronary artery disease [8—11]. However, there are very few data regarding evaluation of return to work in patients with acute STEMI treated by direct PCI, which nowadays is recognized as the best reperfusion method [12,13]. As direct PCI compared with other strategies has been shown to improve left ventricular function and clinical outcome in patients who have an acute STEMI [12,13], subsequent improvement in rate and timing of return to work can be expected. To our knowledge, only one study based on the analysis of the PAMI trial population recruited from 14 countries [14] has recently evaluated the frequency of returning to work after direct PCI for acute STEMI [15]. However, in this international study by Abbas et al. [15], only medical factors were analysed; socio-occupational factors and cardiac rehabilitation were excluded. Also, only half of the patients received stents, and platelet glycoprotein IIb/IIIa receptor inhibitors were used in only 5% of cases of the study by Abbas et al. [15]. As a combination of both stents and glycoprotein IIb/IIIa receptor inhibitors has been demonstrated to improve the results of direct PCI for acute STEMI [16,17], it is reasonable to assume that this modern reperfusion strategy should provide the best medical conditions to promote return to work.

Thus, in this study, we analysed the impact of both medical and socio-occupational factors as well as cardiac rehabilitation on return to employment after acute STEMI in a large cohort of working patients who underwent modern reperfusion by direct PCI in a single institution, with extensive use of both stents and glycoprotein receptor inhibitors.

Methods

Study population

All 807 consecutive patients who were treated in our institution by direct PCI for an acute STEMI from January 2000 to December 2004 were considered for the study. Of these,