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## THE ROLE OF PRIMARY PCI FOR ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

**The guidelines of the American College of Cardiology and American Heart Association state that primary PCI is a class I indication in patients with ST-segment elevation myocardial infarction who can undergo the invasive procedure within 12 h after the onset of symptoms. This is true provided that the procedure is performed timely by experienced cardiologists in an appropriate facility.**

Reperfusion treatment is the therapy indicated for patients with myocardial infarction associated with ST-segment elevation (greater than 0.1 mV in at least two contiguous electrocardiographic leads). Primary PCI is to be preferred if skilled interventional cardiologists and a catheterisation laboratory with surgical facilities are available and if the procedure may be performed within 90 min after the first clinical contact with the patient. Primary PCI should also be preferred for selected patients even if the period between the first clinical contact and the invasive procedure ("door-to-balloon" interval) is longer than 90 min. These selected patients include those with an elevated risk of bleeding with fibrinolytic therapy (including people 75 years of age or older), subjects with a contraindication to fibrinolytic therapy, individuals whose clinical findings (including hypotension and tachycardia) indicate a high risk of a complicated medical course or death, and patients with cardiogenic shock. The guidelines of the American College of Cardiology and American Heart Association state that primary PCI is a class I indication in patients with ST-segment elevation myocardial infarction who can undergo the procedure within 12 h after the onset of symptoms, provided that the invasive procedure is performed timely by experienced cardiologists in an appropriate facility. Experienced operators are those who perform more than 75 interventional procedures each year in a cath lab in which more than 200 coronary interventional procedures are performed each year (and at least 36 of them must be primary procedures), and that includes a cardiac surgical facility. The European Society of Cardiology also considers primary PCI to be the preferred myocardial reperfusion approach in patients with myocardial infarction with ST-segment elevation (class I indication).

**Reference**

Keeley EC, Hillis D (2007) Primary PCI for myocardial infarction with ST-segment elevation. N Engl J Med 356:47–54

## EFFICACY OF A SELF-REGULATION PROGRAMME BASED ON DAILY WEIGHING AND ON FACE-TO-FACE INTERVENTION IN MAINTAINING WEIGHT LOSS THROUGH TIME

**Body weight self-regulation programmes, particularly with a face-to-face intervention performed by educators, allow the maintenance over time of previous weight loss better than programmes based only on periodical written advice.**

One of the major challenges for individuals who succeeded in losing weight is that of maintaining the body weight achieved. The Authors of this study set up two programmes for the maintenance of body weight based on the self-regulation theory (one with personal contact with educators, the other with Internet-based interventions) and compared them with a control group receiving quarterly newsletters. 314 subjects, who had lost a mean weight of 19.3 kg in the two years before, were assigned to three groups; the content of the two educational programmes based on self-regulation was the same. In the course of the 18 months of the study, the subjects assigned to the self-regulation programme that included a face-to-face intervention gained a mean of 2.5 kg of body weight, while the participants in the self-regulation programme with Internet-based interventions gained 4.7 kg, and the control group 4.9 kg. The proportion of participants who regained 2.3 kg in the 18 months of the study was significantly lower in the intervention group with face-to-face intervention (45.7%) if compared to the Internet-based intervention group (54.8%) and to the control group (72.4%). Daily self-weighing was more frequent in the two intervention groups if compared to the control group. Therefore, maintenance through time of weight loss is favoured in a very significant way if face-to-face self-regulation programmes are adopted, instead of the usual programmes based on periodical written advice.

**Reference**

Wing RR, Tate DF, Gorin AA, Raynor HA, Fava JL (2006) A self-regulation program for maintenance of weight loss. N Engl J Med 355:1563–1571

## LIMITED UTILITY OF ATYPICAL ANTIPSYCHOTIC DRUGS IN THE TREATMENT OF PATIENTS AFFECTED BY ALZHEIMER'S DISEASE IN THE REAL-WORLD

**In this real-world controlled randomised trial significant clinical improvements with the use of atypical antipsychotic drugs were not recorded, and therefore the Authors concluded that the side effects of these drugs offset the benefits of drug therapy for psychosis and agitation in subjects with Alzheimer's disease.**

Traditional clinical studies are not often able to reproduce the conditions in which clinical practice is daily implemented, namely, the real setting in which patients and their diseases vary over time. Moreover, the dosage of administered drugs is not infrequently modified on account of their side effects. In order to reproduce in the most authentic way real-world conditions, a group of US researchers designed and conducted a pragmatic study to understand if atypical second-generation antipsychotic drugs are useful in daily clinical practice so as to control behaviour disorders of people affected by Alzheimer's disease. These drugs are commonly used to treat psychosis and agitation in subjects with Alzheimer's disease, even though their benefits are uncertain and concerns about their safety have recently emerged. This double-blind, placebo-controlled clinical study, which enrolled patients in 42 different centres, recruited 421 individuals with Alzheimer's disease and psychosis or agitation. The patients were assigned in a randomised way to treatment with

olanzepine (mean dose: 5.5 mg daily), quetiapine (mean dose: 56.5 mg daily), risperidone (mean dose: 1 mg daily) or placebo, and followed up to 36 weeks. No significant differences have emerged among the different treatments and placebo with regard to the time to the discontinuation of the therapy (olanzepine: median time 8.1 weeks; quetiapine: median time 5.3 weeks; risperidone: median time 7.4 weeks; placebo: median time 8 weeks), and approximately half the patients discontinued drug assumption in the time span of 8 weeks. No significant difference was recorded among the studied drugs and the placebo with reference to the improvements of the patients recorded by means of the Clinical Global Impression of Change scale at 12 weeks. The Authors of this study conclude that, overall, the adverse effects of studied drugs offset the benefits of the therapy with atypical antipsychotic drugs in the treatment of psychosis and agitation in patients with Alzheimer's disease.

**Reference**

Schneider LS, Tariot PN, Dagerman KS et al (2006) Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease. N Engl J Med 355:1525–1538

## D-DIMER DOSAGE ALLOWS THE IDENTIFICATION OF PATIENTS IN WHOM ANTICOAGULATION THERAPY SHOULD BE CONTINUED FOR A LONGER PERIOD OF TIME

**Individuals who have suffered an idiopathic proximal deep-vein thrombosis or pulmonary embolism and who have an abnormal D-Dimer value one month after the discontinuation of anticoagulation therapy have an incidence of recurrent venous thromboembolism significantly higher than patients with D-Dimer normal values.**

A group of Italian researchers designed and conducted a multicentre clinical trial in patients with a first unprovoked proximal deep-vein thrombosis or pulmonary embolism who had received a vitamin K antagonist for at least three months. In the enrolled subjects D-Dimer was measured one month after the discontinuation of the anticoagulation therapy. In patients with normal D-Dimer values anticoagulation therapy was not continued, while individuals with abnormal D-Dimer values were subdivided in two groups: in one group anticoagulation therapy was discontinued, while in the other this therapy was prolonged for a mean of 1.4 years. In the 223 patients (37%) in whom D-Dimer values were abnormal, those in whom anticoagulation therapy was discontinued had an incidence of venous thromboembolism clearly higher (15%) as compared to those in whom anticoagulation therapy was not discontinued (2.9%). Overall, the patients in whom the anticoagulation therapy was discontinued were four times more likely to undergo a thromboembolic recurrence (adjusted hazard ratio: 4.26, 95% confidence interval 1.23–14.6; $p$=0.02) than subjects in whom anticoagulation therapy was prolonged. Therefore, in patients with previous venous thromboembolism and abnormal D-Dimer values, anticoagulation should be continued for a longer period of time as compared to patients with idiopathic venous thromboembolism and normal D-Dimer values.

**Reference**

Palareti G, Cosmi B, Legnani C et al (2006) D-Dimer testing to determine the duration of anticoagulation therapy. N Engl J Med 355:1780–1789

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