METFORMIN FOR THE TREATMENT OF METABOLIC DISTURBANCES AND CARDIOVASCULAR RISK FACTORS IN WOMEN WITH POLYCYSTIC OVARY SYNDROME: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: Polycystic Ovary Syndrome (PCOS) is one of the most common endocrine disorders affecting five to ten percent of young women. Aside from its cutaneous symptoms and reproductive morbidity, PCOS associates with metabolic syndrome and an increased risk of cardiovascular events. In recent years the use of Metformin, an insulin sensitizer, in PCOS has aroused a great interest. Metformin administration restores ovulatory menstrual cycles and seems to improve infertility. However, the extent to which this agent improves the metabolic and cardiovascular risk factors associated with PCOS remains uncertain. Our aim was to assess the effectiveness of Metformin in improving clinical and metabolic features of PCOS.

METHODS: Systematic Review (up to February 2008) and meta-analysis of randomized controlled trials that compared Metformin versus placebo or other standard therapies for PCOS such as oral contraceptive pills (OCPs) and measured metabolic and cardiovascular parameters.

RESULTS: Of 120 candidate studies, 19 trials were eligible. Methodological quality of these trials was low. Meta-analyses showed a small decrease in BMI and systolic blood pressure in women treated with Metformin compared to placebo. The other parameters including waist circumference, waist-hip ratio, diastolic blood pressure, fasting blood glucose, insulin levels and lipid profile did not differ between the groups. As against OCPs, Metformin significantly reduced the BMI but no other significant differences were observed.

CONCLUSIONS: Scant and inconsistent evidence suggest that Metformin provide limited or no important benefit for metabolic derangements and cardiovascular risk factors in women with PCOS. Further research is needed to solve this important health issue.

PROSPECTIVE STUDY TO EVALUATE THE IMPACT OF A DISEASE EDUCATION PROGRAM OF CARDIOVASCULAR RISK CONTROL IN HYPERTENSION

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OBJECTIVES: To evaluate the effectivity of an education program, measuring the percentage of patients with blood pressure control at the end of a follow-up period in comparison to baseline.

METHODS: Prospective and multicentric study realized in Hypertension Units (HU) and Primary Care (PC) centers in Spain. Physicians included outpatients ≥18 years with no controlled essential hypertension (BP > 140/90 or BP > 130/80 mmHg if diabetic or previous CV events and BP < 180/110 mmHg). Patients were followed for five months in four scheduled visits. At V0 blood pressure, patient demographics, medical and drug history, CV risk factors and lifestyle were assessed using standardized methods. Between V0 and V1 the intervention consists in medical education for physicians on CV risk control and guidelines. During V1 and V2 patients received education and support. At V3 we assessed the overall intervention in BP control. Informed consent was obtained.

RESULTS: A total of 316 patients were recruited, 64.2% in PC and 35.8% in HU centers (62.8 ± 12.1 years, 51.6% males, BMI 29.8 ± 5.1 Kg/m²). Mean office BP was 156.0 ± 14.3/94.4 ± 10.9 (mean AMPB daytime 141.4 ± 12.7/86.5 ± 11.3) mmHg at baseline. Obesity (60.6%), dyslipemia (53.4%), type-2 diabetes (23.1%), target organ damage (16.6%), smoking habits (16.6%) and coronary artery disease (12.8%) were the most prevalent CV risk factors. A total of 82.4% of patients completed satisfactorily the intervention. Mean BP had a decreasing trend along the study: at V1 mean BP was 143.1 ± 16.9/82.8 ± 11.5, at V2 was 137 ± 13.1/79.5 ± 9.1 and at V3 was 135.0 ± 12.4/77.8 ± 8.8. At the end of the study 52.7% of patients reach the BP goal during the 5-month intervention study.

CONCLUSIONS: Based on this results, medical and patient education determine a greater BP control, hence more educational actions are needed to increase BP control.

TECHNOLOGICAL INNOVATION AND THE DECISION-MAKING PROCESS IN ITALIAN HOSPITALS

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OBJECTIVES: This paper aims at discussing hospital managers’ consideration of costs vs. tariffs (i.e. DRGs) when decisions on