

Conclusion:

- In diabetic patients undergoing coronary artery stenting, patients with HbA1c levels $\leq 7\%$ may have lower risk of restenosis and have better clinical outcome after PCI at 2-year follow-up.
- Clopidogrel may reduce the risk of restenosis in diabetic patients who underwent coronary artery stenting when used for more than 12 month or more (12–24 month).

References

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DNA content in children with congenital heart disease

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Background: CHD represents the most important component of pediatric cardiovascular diseases. It has a high risk of morbidity and mortality in newborns and infants. were considered as multifactorial diseases. However genetic factors were considered as a corner stone of their etiology. The DNA content represents the nuclear genomic concentration. It is affected by several multifactors.

Objective: The aim of our study was to determine the DNA content in particular common congenital heart disease. To detect the correlation between their DNA content and the chromosomal pattern as well as with the hemodynamic aspect of CHD.

Material and methods: The present study was subjected on 30 children suffering from the most common CHD and accordingly classified into three groups; 1st (VSD) 2nd (TOF), 3rd (D-TGA), each included 10 cases with specific criteria and equally gender distribution, and ten healthy age matched children as control group. All studied groups were subjected to thorough clinical, functional, structural and hemodynamic cardiac assessment as investigated via electrocardiogram, cardiac X rays, full echocardiography, and cardiac catheterization studies. Also full chromosomal, cytogenetic and DNA content studies were applied.

Results: The value of structural and numerical chromosomal aberrations was found to be significantly higher in cyanotic congenital heart disease (CCHD) than that of acyanotic congenital heart disease (ACCHD). Current study revealed that there was a highly significant correlation between the incidence of the chromosomal aberrations both structural and numerical as well as the aging and the mean values of DNA content of CHD. Also there was highly significant decreased in DNA content values in CHD in comparison to control group and the affection in DNA content of (CCHD), was more aggressive than in (ACCHD). However there was non significant relation between DNA content and the hemodynamic and function aspect of CHD.

Conclusion: DNA content of CHD was highly significant reduced. It is affected by the incidence of chromosomal aberrations, aging and the cardiomyocytic apoptosis.

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Drug eluting balloons in femoro-popliteal artery disease

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Background: Treatment of femoropopliteal artery disease by percutaneous transluminal angioplasty (PTA) is limited by high rates of restenosis (40% to 60%) 6 to 12 months after procedure. The high mechanical stress (bending, compression, torsion) that occurs in the femoropopliteal arteries with normal patient movement is associated with an increased risk for stent fractures and in-stent restenosis. Furthermore, the reduction of restenosis seen with drug-eluting stent treatment of coronary artery disease was not observed in several studies of drug-eluting stent use in femoropopliteal artery disease. Hence, an alternative stent-free therapy that may similarly reduce restenosis and improve clinical outcome has been sought.

Objectives: To review the recent clinical trials using drug-eluting balloons (DEB) in treatment of femoropopliteal artery disease.

Methods: There are four already finished randomized studies in patients with superficial femoral artery lesions investigating the efficacy of paclitaxel release by DEB. Currently there is a rapidly increasing clinical study program using DEB in different locations and indications.

Results: All 4 trials demonstrated significantly improved patency rates at 12 and 24 months angiographic follow-up compared to standard PTA. DEB offer several advantages compared to drug eluting stents, since any stentless technology for improving long-term patency is preferable to overcome the drawbacks of stenting in this mobile segment.

Conclusions: DEB technology has demonstrated the capacity to have a significant impact on the practice of percutaneous cardiovascular interventions in the future. Several clinical trials have demonstrated promising early and mid-term results in treating femoropopliteal lesions. Long-term results, exact indications, and optimal applications are yet to be determined.

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Early detection of left ventricular dysfunction in asymptomatic diabetic patient using strain and strain rate echocardiographic imaging

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Background/aim: Diabetic cardiomyopathy is defined as left ventricular dysfunction that occurs independently of coronary artery disease, and hypertension. The aim of this study is to investigate early alterations in left ventricular systolic and diastolic functions in patients with type 2 diabetes mellitus using strain and strain rate Echo compared with normal subjects.

Patients and methods: he present study enrolled forty subjects. They were divided into two groups: Group (1): Patients with only type 2 diabetes mellitus (20 Patients). Group (2) Normal Subjects as controls (20 Patients). All patients of type 2 diabetes mellitus according to the WHO criteria treated with oral hypo glycemc drugs. Mean age of diabetic group is (53.05 \pm 7.02). All the studied groups were subjected to: full history taking and clinical examination, resting 12 leads surface electro-cardiogram, laboratory assessment of Glycosylated Hb, standard trans-thoracic echocardiography, tissue Doppler imaging, strain and strain rate imaging.