

TEV E PATOLOGIE CARDIOVASCOLARI

ORAL ANTICOAGULATION WITH VITAMIN K ANTAGONISTS IN EARLY CHILDHOOD: A SINGLE CENTRE-EXPERIENCE.

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Background. The oral anticoagulant therapy with vitamin K antagonists (VKAs) is a very important and challenging tool for pediatric patients. The evidence in 0-3 years old patients is very limited, therefore guidelines are based on adult patients data.

Aims. The aim of this study is to illustrate the experience of a pediatric anticoagulation Centre, describing PT INR (Prothrombin Time International Normalized Ratio) stability, hemorrhagic and thrombotic complications in 0-3 years old patients.

Methods. We retrospectively analysed clinical records of 9 patients who started VKAs therapy within 3 years of age, from January 2016 to May 2024. Amongst the 2076 INR measurements, most were performed using a POC device for in-home testing. The medical software PARMA (anticoagulant archiving, reporting and monitoring program) was used for the dosage schedule prescription in telemedicine, following the FCSA (Federation of Italian centers for the surveillance of antithrombotic therapies) recommendations.

Results. Mean follow-up was 52 months (16-98). VKAs therapy was started at a mean age of 9,8 months (1,3-30,5), mainly for mechanical mitral valve implantation (55,6%), 33,3% for congenital cardiopathy correction, 11,1% for mechanical aortic valve implantation. The mean INR testing frequency was 1 measurement every 6,3 days. During the follow-up, 92 overdosing episodes (INR ≥ 5) were reported (mostly due to cow's milk) and only 1 was associated with a minor haemorrhage. Underdosing episodes with INR < 2 that needed heparin prophylaxis were 4. Our patients' INR was in therapeutic range in 50,4% of the time, below in 27,6% and over in 22%. No thrombotic events were reported, whereas only 3 minor haemorrhages were reported. The frequency of haemorrhagic complications was 0,16 episodes per year.

Conclusions. Our data indicate that prophylaxis with VKAs is feasible, safe, and effective even in children under 3-years of age. Episodes of supra-therapeutic INR are more frequent than in adults but almost never accompanied by haemorrhagic symptoms.

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