



Prevention in children and adolescents AEPap/PAPPS

Prophylaxis with vitamin K to prevent the Hemorrhagic disease of the newborn

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Vitamin K deficiency at birth is a risk factor for the Hemorrhagic disease of the newborn or Vitamin K deficiency bleeding (VKDB). This pro-hemorrhagic condition can produce severe bleeding mainly in the skin, the gastrointestinal tract, and the brain. It can be prevented with the administration of vitamin K in the first hours of life.

Term newborns have a vitamin K level 50% lower than adults.

The incidence of VKDB in newborns without prophylaxis is 0.25-1.7%. Epidemiological data shows that prophylaxis prevents VKDB in the classical and late presentations with a current incidence of <0.2/100 000 live-born infants.

Recently, indirect available data suggest that the number of parents rejecting prophylaxis is growing. Not administering vitamin K at birth can be associated to other kind of behaviors that implies a risk for the newborn, such as rejecting ocular prophylaxis and vaccinations.

A Cochrane systematic review in 2000 concluded that vitamin K prophylaxis at birth prevents the classical presentation of VKDB. Nevertheless, there are no published randomized clinical trials about the late presentation; it must be considered that these trials would not be feasible because being a low frequency illness they would need an excessively big sample size; also, there would rise relevant ethical issues since there are other types of studies that allow to evaluate the effect of prophylaxis in late presentation VKDB. The epidemiological follow-up in several countries has demonstrated that vitamin K administration at birth also prevents late VKDB.

The side-effects derived of the prophylaxis are mild and rare; pain due to the intramuscular injection can be alleviated with non-pharmacological measures.

VKDB is a severe disease. There is evidence of good quality that vitamin K administration in the newborn is safe and effective, potential harms are mild, so that it is clear the net benefit in favor of its administration.

Prevnfad recommendations

- After birth, offer the administration of 1 mg intramuscular vitamin K to all newborns as prophylaxis to prevent VKDB (strong in favor)
- Special considerations:
 - Related to preterm newborns:
 - If weight at birth is less than 1500 g: consider administering 0.5 mg instead of 1 mg of vitamin K. It will preferably be administered by IM route.
 - Consider administering intravenous vitamin K in critically ill newborns (term and preterm), that are at risk of destabilization due to intramuscular administration and in those newborns with known cholestatic disease.
 - If parents reject IM prophylaxis:
 - Offer the oral schedule: Three 2 mg oral vitamin K doses (at birth, between the fourth and the sixth day of life, and between four and six weeks of life)