

## Impact of weaning method on weanlings' weight gain in domestic horses

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Artificial weaning is associated with various stresses for the foal, such as loss of the mother, feeding changes, new and unfamiliar environment, etc. We investigated the impact of two different methods of abrupt weaning on weight gain in group housed Kladruby horses born 2009 (National Stud Kladruby nad Labem, CZ). Two groups of the foals were weaned abruptly at age from 5,5 to 8 months and transported to the other facility but the first group (G1, N=14) spent one week in their home environment after their mothers were led away. The other foals (G2, N=15) were moved away immediately after separation from the mothers (i.e. they lost the mother and known environment at one time). Foals were weighed: at the weaning day, weekly within the first month and then monthly up to 6 months after weaning. Neither birth nor weaning weight differed significantly between the two groups kept under similar nutrition. We hypothesised that a week spent in the home environment should reduce foal's weight loss usually following the loss of the mother and moving to the unknown environment.

The weaning type significantly influenced weight gain the foals reached one week after weaning ( $p < 0.001$ , GLM, PROC GLM, SAS). Contrary to our expectations, G1 foals lost their weight whereas G2 ones gained weight during the same period (-4.9 vs. +3.2 kg). G1 foals reached back their weaning weight within 3 weeks after weaning. The weight of the foals at 6 months after weaning was still marginally higher in G2 than G1 foals (388.2 vs. 365.7 kg,  $p < 0.07$ ).

We found lower detrimental effect on weight gain in G2 foals (i.e. weaned and immediately moved) compared to G1 foals (weaned and stayed before moved). Thus, our results indicate lower stress induced to the foals in more radical type of weaning.

Key words: Horse, *Equus caballus*, weaning, weight gain

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