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Curriculum vitae:

Graduated in 2015 at University of Milan (Italy) as Neurodevelopmental disorders therapist.

Specialized in Animal assisted interventions since 2016.

Working at Niguarda General Hospital, Milan (Italy) in the Child Neuropsychiatry Department at the Equestrian rehabilitation Centre Vittorio Di Capua since 2017.

Role: Horse assisted therapies with patients in developmental age mostly with genetic syndromes, neurodevelopmental disorders and intellectual disabilities.

Category: Poster

Topic: Disabilities & Symptoms: Neurocognitive Disorders

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Title: PILOTSTUDY: EQUINE ASSISTED THERAPY IN RETT SYNDROME AT NIGUARDA GENERAL HOSPITAL

Keyword 1: Rett syndrome

Keyword 2: Equine Assisted Therapy

Keyword 3: Developmental disability

Abstract:

Objective: Our study seeks to delineate possible areas of interventions of Equine Assisted Therapy (EAT) in Rett syndrome (RTT: degenerative neurodevelopmental disorder resulting in severe intellectual and neuro-behavioural disability) and highlight the potential benefits of integrating EAT with other treatments.

Design: We recruited 4 girls at V. Di Capua Equestrian Rehabilitation Center, at the Niguarda General Hospital in Milan. Inclusion criteria: RTT diagnosed following the guidelines and mutation analysis of MECP2 gene; aged 3 to 6 years. Exclusion criteria: presence of contraindications to EAT. All the girls were in the post-regression phase of the disorder, with severe intellectual disability and unable to speak. Each patient was evaluated at the beginning of EAT, and after 40 sessions of EAT, using Vineland Adaptive Behavior Scale (VABS), Gross Motor Function Measure (GMFM), and video-recording analysis.

Results: VABS was completed for 3 patients. From the analysis of the results, an improving trend is observed in the area of socialization for patient 1; and in the area of motor skills for both patients 2 and 4. In all other domains of VABS the scores remain fairly stable, showing no deterioration. Video recording analysis showed an overall improvement for individualized therapeutic goals (functional hand use, postural stability, communication). GMFM-88 analysis shows a stable or improving overall score.

Conclusions: We identified promising results on postural control, functional hand use and communication skills, although not clearly supported by significant changes in specific scales probably due to the severity of the clinical profile of RTT patients. Equine Assisted Therapy may represent an innovative rehabilitative intervention to maintain and possibly regain developmental skills in Rett patients. Future research will be necessary to better understand the role and the effectiveness of EAT in patients with RTT.