European Respiratory Society Annual Congress 2013

Abstract Number: 4435

Publication Number: P2293

Abstract Group: 1.4. Interventional Pulmonology

Keyword 1: COPD - management Keyword 2: Treatments Keyword 3: Lung mechanics

Title: Lung volume reduction coils (LVR-coils) for pulmonary emphysema: Results of the Italian National registry

Dr. Michela 28849 Bezzi michela.bezzi@spedalicivili.brescia MD ¹, Dr. Mauro 28850 Novali mauronovali@gmail.com MD ¹, Dr. Martina 28851 Bonifazi martinabonifazi@libero.it MD ², Dr. Giuseppe 29662 Failla faillone@tin.it MD ³, Dr. Lina 29663 Zuccatosta lina.zuccatosta@tiscali.it MD ², Dr. Piero 29723 Foccoli pierfranco.foccoli@spedalicivili.brescia.it MD ¹ and Prof. Stefano 29787 Gasparini s.gasparini@fastnet.it MD ². ¹ Interventional Pulmonology, Spedali Civili of Brescia, Brescia, Italy ; ² Pneumologia, Ospedale Torrette, Ancona, Italy ; ³ Pneumologia, Ospedale Civico, Palermo, Italy and ⁴ Pneumologia, Ospedale Maggiore, Novara, Italy .

Body: Patients with severe emphysema may benefit from LVR-coil treatment. We present our first safety and efficacy results. In the setting of the Italian registry pts with severe, heterogeneous emphysema underwent uni- or bilateral LVR-coil treatment in 4 hospitals. Baseline and follow-up tests included pulmonary function and 6MWT. Over 2 yrs 35 procedures (310 coils) were performed in 29 pts (baseline FEV1 23±7% pred, RV 239±49%, TLC 130±21%); 23 pts received a unilateral treatment and 6 were treated bilaterally. Each procedure took in average 39 (35-80) min to place 8.8 (± 0.9) coils per lobe. Most of the pts experienced mild (25) or severe (2) hemoptysis. Other adverse events were 1 pneumothorax, 4 pneumonia, 7 COPD exacerbation and 2 chest pain. One month after treatment (27 pts) we reported significant reduction in RV (239±49%vs218±57%,p=0.007), though TLC didn't change significantly (130±21%vs127±19%,ns). Exercise capacity has improved significantly according to the 6MWD (240±78vs273±88mt,p=0,04). FEV1 also improved significantly (23±7%vs28±8%,p=0,001). Three-months follow up data in 15 pts showed a return-to-baseline in FEV1 (23.8±5%,ns) and RV (228±48%, ns). Improvement in 6MWD was maintained (290±134mt). LVR-Coils treatment of severe emphysema is feasible and safe in improving lung physiology, pts symptoms, exercise capacity and quality of life. A significant improvement in FEV1 is remarkable. Its return-to-baseline after 3 months points out the need for a bilateral treatment. The setting of a national registry allows standardized patient selection and follow up in everyday practice. This research setting is advisable for every "commercially" available "sperimental" device.