

Session R. Miscellanea

R51 **Thoracentesis in cancer patients with severe thrombocytopenia: ultrasound guide improves safety**

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Background: Patients with severe thrombocytopenia are considered at risk for bleeding during invasive procedure like thoracentesis. In such patients, ultrasound (US) – guided thoracentesis may be a valid approach, however there is lack of data on the safety and efficacy of US-guided thoracentesis performed in cancer patients with severe thrombocytopenia.

Materials and methods: We retrospectively analyzed the efficacy and safety of thoracentesis in cancer patients including those with severe thrombocytopenia, defined

as platelet count ≤ 30 109/L. From January 2005 to December 2011, 441 patients with cancer underwent thoracentesis. Procedures were divided into two groups: Group A: thoracentesis performed without US-guidance and Group B: thoracentesis performed with US –guidance. All procedures were evaluated for hemorrhagic complications as defined by the National Institutes of Health Common Terminology Criteria for Adverse Events.

Results: A total of 441 consecutive evaluable patients that underwent thoracentesis were included in the present study, in 310 cases thoracentesis (70.29%) was performed with US-guidance, while in 131 (29.71%) without it. Forty-one of 441 patients (9.30%), had severe thrombocytopenia, of these, 9 patients were in Group A and 32 in Group B. There were three hemorrhagic complications out of 41 procedures performed in patients with severe thrombocytopenia: all these 3 complications were in group A (1 grade, 1 and 2 grade 2), zero hemorrhagic complications were registered in group B.

Discussion: US-guided thoracentesis is a safe and effective approach in cancer patients with severe thrombocytopenia, and our data indicate that US-guidance is associated with decreased risk of bleeding complication with thoracentesis in patients with severe thrombocytopenia.