PROTOCOL SYNOPSIS		
TITLE	**Stereotactic body radiation therapy (SBRT) and liver cancer: interday and immobilization-related respiratory motion variability and its impact on treatment planning.**	
SHORT TITLE	**SBRT in liver cancer: respiratory motion profile and immobilization.**	
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OBJECTIVES	**Primary:** - To evaluate respiratory motion variability registered on subsequent days and with different immobilization systems (free-breathing and respiratory gating). - To evaluate target position variability. - To assess the best immobilization option for treatment according to the patient respiratory motion profile. **Secondary:** - To discuss the eventual impact of the treatment option on the surrounding normal tissue.	
BACKGROUND	Several small studies have demonstrated that SBRT is an effective and safe means of local treatment in liver cancer. Improved immobilization, localization and compensation for respiratory movement are all factors that contribute to precisely target small tumors, deliver higher fractional doses than conventional radiotherapy in fewer fractions and, at the same time, minimize dose to sane tissues. The objective of this retrospective study is to determine, based on data recovered from pre-radiotherapy four-dimensional CT scans of patients treated for liver cancer, whether there are significant differences in patients respiratory motion on subsequent days and according to the type of immobilization used (free-breathing or respiratory gating) and in the target's position and to identify eventual subgroups profiles. The identification of such subgroups of patients could allow treatment planning personalization according to the respiratory motion profiles. In addition, the impact of the treatment option concerning the immobilization on normal tissues could also be analyzed.	