Nitrogenous subcutaneous emphysema caused by spray application

of fibrin glue during retroperitoneal laparoscopic surgery.

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Abstract:

We report a case of a patient treated by retroperitoneoscopic partial nephrectomy who developed

nitrogenous subcutaneous emphysema (SCE) as a complication. The use of a nitrogen

gas-pressured fibrin tissue adhesive applied as a spray caused excessively increased pressure in

the closed retroperitoneal space and resulted in widespread SCE with protracted clinical course. To

the best of our knowledge, this is the first report of nitrogenous SCE associated with

pneumoperitoneum. The clinical significance of nitrogenous SCE is emphasized, and the risks

associated with the use of fibrin glue as a spray during laparoscopic surgery are discussed. © 2011

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