

KONTAMINASI SEL DARAH MERAH PADA SISA BAHAN ANESTESI DALAM *CARTRIDGE* PASCA INJEKSI ANESTESI LOKAL MENGUNAKAN *SYRINGE* INTRALIGAMEN MEREK S

Bagas Luthfi Alfat¹, Budiono², Hayyu Failasufa²

¹Mahasiswa Program Studi S1 Pendidikan Dokter Gigi, Fakultas Kedokteran Gigi, Universitas Muhammadiyah Semarang, Hp. 08562892830, email: bagasluthfi@gmail.com

²Dosen Program Studi S1 Pendidikan Dokter Gigi, Fakultas Kedokteran Gigi, Universitas Muhammadiyah Semarang

Abstrak

Dokter gigi pada umumnya menggunakan *syringe* intraligamen untuk melakukan injeksi larutan anestesi dalam *cartridge disposable* pada prosedur anestesi lokal. Hasil penelitian pendahuluan dengan menggunakan kuisioner, didapatkan bahwa dokter gigi masih menggunakan sisa larutan anestesi untuk pasien lain. Pada saat injeksi anestesi lokal, darah dapat memberikan tekanan balik sehingga memungkinkan terjadinya kontaminasi. Tujuan dari penelitian ini adalah mengetahui adanya kontaminasi sel darah merah pada sisa bahan anestesi dalam *cartridge* setelah injeksi anestesi lokal menggunakan *syringe* intraligamen merek S. Bahan yang digunakan pada penelitian adalah *cartridge* berisi mepivacaine hydrochloride 3%. *Cartridge* diminta oleh peneliti setelah digunakan prosedur anestesi kepada pasien, kemudian dilakukan observasi menggunakan *Urinalysis Reagent Strip (Urine)*. Metode penelitian adalah observasional analitik dengan rancangan penelitian *cross sectional*. Metode pengambilan sampel menggunakan *accidental sampling*. Uji analisis data menggunakan korelasi *point-biserial*. Jumlah sampel yang didapatkan berjumlah 20 sampel, diketahui 14 sampel terdapat kontaminasi sel darah merah (65%) dan 7 sampel tidak terdapat kontaminasi sel darah merah (35%). Diketahui bahwa terdapat hubungan yang erat antara kontaminasi sel darah merah sisa larutan anestesi dalam *cartridge* ($r = -0,864$) dan terdapat hubungan bermakna antara kontaminasi sel darah merah dengan sisa larutan anestesi dalam *cartridge* dengan nilai $P = 0,000$ ($P < 0,01$). Simpulan yang diambil adalah terdapat kontaminasi sel darah merah pada sisa larutan anestesi dalam *cartridge* menggunakan *syringe* intraligamen merek S.

Kata kunci: Kontaminasi sel darah merah, sisa larutan anestesi, *syringe* intraligamen

RED BLOOD CELLS CONTAMINATION ON THE RESIDUAL ANESTHETIC SOLUTION INSIDE THE CARTRIDGE AFTER LOCAL ANESTHETIC INJECTION USING INTRALIGAMENTAL SYRINGE S

Bagas Luthfi Alfat¹, Budiono², Hayyu Failasufa²

¹*Undergraduate Dental Education Student, Faculty of Dentistry, University Muhammadiyah of Semarang, Hp. 08562892830, email: bagasluthfi@gmail.com*

²*Lecturer of Undergraduate dental education, Faculty of Dentistry, University Muhammadiyah of Semarang*

Abstract

Dentists generally use intraligament syringe to do injection of anesthetic solution in a disposable cartridge in local anesthetic procedures. The result from preliminary research with form of questionnaires, it is known that dentists still use the residual of the anesthetic solution for other patients. At the time of local anesthetic injection, the blood can provide back pressure to allow the contamination. The purpose of this study was to determine the presence of red blood cell contamination in the remnants of anesthesia in cartridge after local anesthetic injection using S intraligament syringe. The material used in the research is cartridge containing mepivacaine hydrochloride 3%. Cartridge is requested by the researcher after anesthesia procedure is applied to the patient, then make observation using Urinalysis Reagent Strip (Urine). The research method was observational analytic with cross sectional study design. The sampling method uses accidental sampling. Test data analysis using point-biserial correlation. The samples were 20 samples. There were 13 samples of red blood cell contamination (65%) and 7 samples with no contamination of red blood cell (35%). It was known that there was a close relationship between red blood cell contamination and the remaining anesthetic solution in cartridge ($r = -0.864$) and there was a significant relationship between red blood cell contamination and the remaining anesthetic solution in cartridge with $P = 0,000$ ($P < 0,01$). There was contamination of red blood cells in the remaining anesthetic solution in the cartridge by using S intraligamen syringe.

Keyword: red blood cells contamination, residual anesthetic solution, intra-ligament syringe

