Experience with polymethylmethacrylate 30% (PMMA) facial filling in patients with facial HIV lipoatrophy using of local anesthesia dentistry

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Background
HIV-associated lipoatrophy in a common and stigmatizing side effect of HIV infection, is aggravated by antiretroviral therapy; its presence causes distress and compromises adherence to therapy. PMMA filling is often associated with pain and discomfort.

Objective
To evaluate outpatient intervention using local dentistry anesthesia.

Methods
Patients complaining of facial lipoatrophy, from 10/2007 to 11/2011, were offered the filling with PMMA. Cases with bleeding potential, acute or decompensated chronic diseases or use of immunosuppressors or chemotherapy were excluded. Inclusion criteria: perception of distressing malar lipoatrophy and both the assisting physician and the applicant agreeing with potential benefit. After informed consent, patients were infused with 30 mg prilocaine/0.03 IU felypressin in 1.8 ml, using a carpule type syringe aiming to block the posterior superior alveolar nerve. This was followed by PMMA infiltration in different points at the malar region. At first return a simple questionnaire evaluating pain, satisfaction, grading 0 to 10 and if would repeat the procedure.

Results
All 64 eligible patients were included. Mean age 46 (13 to 73) years, mostly white (71.87%), males (68.75%), 37.5% of them MSM. Arterial hypertension was the most prevalent comorbidity (17%), 78% with viral load < 50 c/mL, with a median 585 CD4 cells/mL (95–2063). On a median of 8 years on treatment, 1/3 had been exposed to three classes (NRTI/ NNRTI/PI), one antiretroviral-naïve. Of the 12 patients who had detectable viral load in the first procedure, seven were suppressed to below 50 copies/mL during follow up. Two of the five patients remaining with detectable viremia died from other causes, 2 transferred and 1 remained naïve. 127 procedures were made in 64 patients, a median of 2 (1–6) per patient. After a mean follow-up of 33 weeks, no infection or late complications were observed. Mean dispensed volume was 9 mL (1.5 to 22). Pain grade was documented in 105 procedures; grade < 4 reported by 46%, 4–6 by 34%; 7–8 by 16%, 9 by 2%. All reported that the pain would not hamper future procedures; 94% refer an overall satisfaction from 8 to 10.

Conclusion
The use of local anesthesia in dental facial filling with PMMA in patients with HIV lipoatrophy of the face is safe, decreases pain to tolerable levels and allows high levels of satisfaction with the procedure. The procedure may improve patient adherence to ARV.