nutrition, malabsorption syndromes, fasting for more than 48 hours, or the preoperative presence of nausea, vomiting, or diarrhea, were excluded.

The diameter of the intestine was determined using a sterile stainless steel mechanical pachymeter (Starrett®) calibrated in millimeters. The same surgeon performed the measurements at a predetermined site marked with brilliant green, 20 cm after the duodeno-jejunal angle. The first measurement was made immediately after opening the abdominal cavity before starting the continuous infusion of remifentanil, and the second was done 120 minutes after the institution of the continuous infusion of this drug.

Balanced general anesthesia was induced with 1.5 to 2.5 $mg.kg^{-1}$ of propofol, 0.25 to 0.5 $\mu g.kg^{-1}$ of sufentanil, and 0.15 $mg.kg^{-1}$ of cisatracurium. Isoflurane on an expired fraction of up to 1.2% was used for maintenance, and neuromuscular blockade was maintained with *boluses* of 10% to 20% of the initial dose of cisatracurium when needed. After the initial measurement of the intestinal diameter, the continuous infusion of remifentanil was instituted (0.5 $\mu g.kg^{-1}.min^{-1}$), and titrated according to the surgical stimulus.

The first case evaluated was a 44-year old female with hepatitis B who underwent partial right hepatectomy for a hepatocellular carcinoma. After opening the abdominal cavity, the baseline measurement of the jejunal segment was 31 mm and, after 120 minutes of remifentanil infusion, the diameter measured 21 mm (a 10-mm reduction – 32% - in the diameter of the jejunum). The second case was a 57-year old female patient with breast malignancy who underwent left segmental hepatectomy for a metastatic hepatic node. After opening the abdominal cavity, baseline jejunal diameter was 27 mm, and after 120 minutes of remifentanil infusion it measured 21 mm (a 6-mm reduction – 30% - in jejunal diameter).

Considering this clinical observation that demonstrated a significant reduction in the jejunal diameter in both cases and the several factors that could possibly interfere with this study, such as age, comorbidities, and length of the surgery, among others, we elaborated an experimental study protocol to continue to investigate this hypothesis.

Sincerely,

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**REFERÊNCIAS** – *REFERENCES*

01. Scott LJ, Perry CM — Remifentanil: a review of its use during the induction and maintenance of general anaesthesia. Drugs, 2005;65:1793-1823.
02. Patel SS, Spencer CM — Remifentanil. Drugs, 1996;52:417-428.
03. Glass PS, Gan TJ, Howell S — A review of the pharmacokinetics and pharmacodynamics of remifentanil. Anesth Analg, 1999; 89:S7-14.
04. De Luca A, Coupar IM — Insights into opioid action in the intestinal tract. Pharmacol Ther 1996;69:103-115.
05. Wallden J, Thorn SE, Wattwil M — The delay of gastric emptying induced by remifentanil is not influenced by posture. Anesth Analg, 2004;99:429-34.

## Anestesia Tópica Associada à Sedação para Facoemulsificação. Experiência com 312 Pacientes

(Rev Bras Anestesiol, 2008;58:23-34)

Sra. Editora,

Sobre o artigo científico “Anestesia Tópica Associada à Sedação para Facoemulsificação. Experiência com 312 Pacientes”, o autor apresenta resultados conflitantes que, a meu ver, comprometem parte da discussão e das conclusões apresentadas.

Na metodologia, tomamos conhecimento que após a sedação com midazolam 1 mg e a instilação do colírio anestésico os pacientes receberam ainda 125 µg de alfentanil EV imediatamente antes do início da cirurgia e que a mesma quantidade em *bolus* seria repetida sempre que necessário em casos de dor ou desconforto (termo eufêmico para dor leve). A seguir, é informado que apenas 13,5% dos pacientes queixaram-se de dor durante a cirurgia. No entanto, se analisarmos a Tabela IV, percebemos de imediato que 303 pacientes (97,1%) receberam doses adicionais de alfentanil, ou seja, queixaram-se de dor durante a cirurgia, e 275 (32%) precisaram de 500 µg ou mais desse analgésico, chegando a um máximo de 1.250 µg.

Fica claro, portanto, que a eficiência da anestesia tópica é baixa, sendo indispensável a complementação analgésica venosa, com seus inconvenientes conhecidos. Não quero, nem posso aqui, entrar no mérito das vantagens e limitações desse tipo de anestesia para cirurgias de facoemulsificação do cristalino, mas acho que a discussão e as conclusões em cima de uma rica casuística como essa devem se basear em resultados corretamente apresentados, sob pena de se tornarem sem efeito se de outra maneira for.

Antônio Márcio S. Arantes Pereira, TSA

## *Topical Anesthesia Associated with Phacoemulsification. Experience with 312 Patients*

(Rev Bras Anestesiol, 2008;58:23-34)

Mrs. Editor,

On the scientific article "Topical Anesthesia Associated with Sedation for Phacoemulsification. Experience with 312 Patients", the author reports conflicting results that I think compromise part of the discussion and the conclusions presented.

On methods, it was informed that after sedation with 1 mg of midazolam and instillation of anesthetic eye drops, patients also received 125 µg of alfentanil IV shortly before the surgery, and that the same amount would be repeated on *bolus* administration whenever necessary, in cases of pain or discomfort (euphemism for mild pain). Afterwards, it was reported that only 13.5% of the patients complained of pain during the surgery. However, by analyzing Table IV, it is noticeable that 303 patients (97.1%) received extra doses of alfentanil, i.e., they complained of pain during the surgery, and 275 of those patients (32%) needed 500 µg or more of this analgesic, up to a maximum of 1,250 µg.

Therefore, it is clear that topical anesthesia has a low efficacy and intravenous analgesic complementation with its known inconveniences is necessary. I do not want, nor can I, in this letter discuss the advantages and limitations of this type of anesthesia for phacoemulsification of the lens, but I think that the discussion and conclusions using this sample size should be based on results presented correctly; otherwise, they may overlook their importance.

Antônio Márcio S. Arantes Pereira, TSA

## Réplica

Prezado colega, em relação ao seu comentário sobre nosso artigo, gostaríamos de salientar alguns pontos. Primeiramente, está claro no método que os pacientes receberam *bolus* de alfentanil conforme necessidade (algum tipo de desconforto ou dor). Não consideramos desconforto como dor leve, portanto não há eufemismo. A dor tem um caráter subjetivo, indispensável ao seu entendimento e não podemos dimensioná-la a não ser com a afirmativa de quem a sente. Há várias situações na realização desse tipo de intervenção que causa desconforto, tais como lavar o olho com solução fisiológica, manipular a íris, etc. No estudo, foi mostrado na Tabela IV o percentual de alfentanil usado em ambos os casos, não só em pacientes que se queixaram de dor.

Quanto à eficiência da técnica, nossa conclusão refere-se à associação da anestesia tópica à sedação, não à anestesia tópica isoladamente, conforme redigido no texto: "A anestesia tópica associada à sedação mostrou-se de fácil aplicação, prática, rápida, eficaz e acessível a qualquer profissional e estabelecimento de saúde envolvido com o tratamento da catarata, mas a seleção dos pacientes deve ser cuidadosa e ser executada e acompanhada de anestesiologista. A sedação contribuiu de forma determinante, sobretudo nos pacientes ansiosos e inquietos, pois favoreceu a tranqüilidade do doente e conseqüente maior colaboração do mesmo. A boa aceitação pelos pacientes e o baixo índice de complicações perioperatórias sinalizam que essa é uma técnica que pode ser difundida, divulgada e aplicada, respeitando-se a curva de aprendizagem e as habilidades de cada cirurgião."

Por fim, podemos afirmar que nossos resultados foram apresentados de forma correta e refletem, sim, uma rica casuística e uma grande prática diária, que podem ser interpretadas à luz desse trabalho científico.

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## Reply

Dear colleague, we would like to emphasize some aspects regarding your comments on our study. First, it is clear under methods that patients received *boluses* of alfentanil according to their needs (any type of discomfort and pain). We did not consider mild pain as discomfort; therefore, there is no euphemism. Pain is subjective, which is necessary for its understanding, and we cannot determine its severity but through the statement of the person who feels it. There are several situations in this type of intervention that cause discomfort, such as washing the eye with NS, manipulating the iris, etc. Table IV showed the percentage of alfentanil used in both cases, and not only in patients who complained of pain.

As for the efficacy of the technique, our conclusion is on the association of topical anesthesia and sedation, not on topical anesthesia alone, as stated in the text: "Topical anesthesia associated with sedation showed to be easy to administer, practical, fast, and accessible to any professional and health care facility involved in the treatment of cataracts, but patients should be carefully selected by an anesthesiologist and followed by this professional. Sedation was an important contribution, especially in patients who were anxious and uneasy, because it favored patient tranquility and, consequently, greater collaboration. Good patient acceptance and low rate of complications indicate that this technique can be diffused, made public, and used, respecting the learning curve and abilities of each surgeon."