

**Table 1** Demographics and characteristics of patients with ocular paintball trauma in the United States from 2001 to 2010

Characteristic	Actual frequency; n = 333	National estimates (95% confidence interval); n = 11 827 <sup>a</sup>	Percentage of patients with ocular paintball injury
<b>Gender</b>			
Male	302	10 906 (9837–11 976)	92.2
Female	31	921 (490–1352) <sup>b</sup>	7.8
<b>Age</b>			
0–9 years	22	453 (156–750) <sup>b</sup>	3.8
10–19 years	228	8055 (7007–9102)	68.1
20–29 years	51	2138 (1464–2813)	18.1
≥ 30 years	32	1181 (675–1688) <sup>b</sup>	10.0
<b>Race</b>			
White	177	6947 (5892–8001)	58.7
Black/African American	27	665 (328–1003) <sup>b</sup>	5.6
Unknown	97	3295 (2510–4080)	27.9
Other	32	920 (497–1343) <sup>b</sup>	7.8
<b>Coded diagnosis</b>			
Contusions, abrasions	163	6081 (1074–7089)	51.4
Dermatitis, conjunctivitis	4	100 (0–229) <sup>b</sup>	0.8
Foreign body	6	208 (0–442) <sup>b</sup>	1.8
Hematoma	6	214 (0–428) <sup>b</sup>	1.8
Hemorrhage	18	360 (104–616) <sup>b</sup>	3.0
Internal injury	1	60 (0–180) <sup>b</sup>	0.5
Laceration	7	306 (30–582) <sup>b</sup>	2.6
Nerve damage	2	31 (0–73) <sup>b</sup>	0.3
Puncture	4	179 (0–400) <sup>b</sup>	1.5
Strain or sprain	2	85 (0–223) <sup>b</sup>	0.7
Other/not stated	120	4203 (3351–5055)	35.5
<b>Locale</b>			
Home	84	3262 (2451–4074)	27.6
Public property	17	596 (222–970) <sup>b</sup>	5.0
Recreation/sports venue	54	2635 (1872–3398)	22.3
Street/highway	2	22 (0–54) <sup>b</sup>	0.2
Not recorded	176	5312 (4415–6210)	44.9
<b>Year of injury</b>			
2001	41	1802 (1386–2218)	15.2
2002	40	1649 (1281–2016)	13.9
2003	50	1625 (1228–2021)	13.7
2004	49	1802 (1379–2225)	15.2
2005	40	1152 (810–1493) <sup>b</sup>	9.7
2006	40	1344 (960–1728)	11.4
2007	18	680 (404–956) <sup>b</sup>	5.7
2008	14	519 (263–776) <sup>b</sup>	4.4
2009	25	918 (640–1196) <sup>b</sup>	7.8
2010	16	336 (148–523) <sup>b</sup>	2.8

<sup>a</sup> Weighted frequencies based on 100 representative emergency departments in the National Electronic Injury Surveillance System.

<sup>b</sup> Estimates with frequencies <20, weighted frequencies <1200, and/or coefficient of variation >0.3 may not be statistically stable based on guidelines from the National Electronic Injury Surveillance System.

for further enforcement of eye protection protocols, regardless of locale.

The interpretation of the type and severity of injuries was limited by minimal ocular code-based data within NEISS-CPSC.<sup>4</sup> In addition, the NEISS-CPSC did not include cases that presented outside of EDs.

In conclusion, additional strategies are needed to reduce the incidence of preventable paintball injuries, including placing age or licensure limitations on paintball equipment sales and better enforcement of eye protection requirements.

## Conflict of interest

The authors declare no conflict of interest.

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## Sir, Effect of intracameral phenylephrine on systemic blood pressure

A culture of caution pervades in the perioperative use of intracameral phenylephrine (I/C PE) for patients with cardiovascular comorbidities. We sought to assess its safety by investigating whether it confers any clinically significant cardiovascular effect, specifically on blood pressure.

## Study

A prospective interventional study design was employed. Patients were included in the study whether or not they suffered from cardiovascular risk factors. Overall, 421 patients were administered 0.25 ml of I/C PE 2.5%, and blood pressure readings were taken before and

after intracameral administration. Data were analyzed using the paired *t*-test.

### Outcomes

The mean systolic and diastolic blood pressures rose by 2.7 and 0.8 mm Hg post-I/C PE administration, respectively. Neither the systolic nor the diastolic blood pressure changes were statistically significant. The mean of the mean arterial pressures recorded a minor but statistically significant ( $P = 0.015$ ) rise of 1.4 mm Hg, from 106.6 mm Hg to 108.0 mm Hg. We therefore concluded that I/C PE in the specified dose of 0.25 ml of 2.5% has negligible and clinically insignificant effects on blood pressure, and can be safely used during cataract surgery.

### Comment

Intracameral administration of mydriatics provides several advantages compared with topical ones, including a more rapid and sustained effect, less glare and discomfort, and increased cost-effectiveness. This makes it useful not only as an alternative, but also as an adjunct for patients with poor topical mydriasis. One particular concern with topical instillation is the greater systemic absorption, which has been demonstrated to carry potential cardiovascular risk.<sup>1</sup> Hypertension is a comorbidity for half of patients undergoing cataract operations, and even if medically controlled these patients are already at risk of preoperative rises in blood pressure.<sup>2</sup>

Similar studies investigating the blood pressure effects of intracameral adrenaline found no intraoperative fluctuations in blood pressure as compared to or as adjuncts to topical mydriatics.<sup>3,4</sup> The only existing literature regarding complications of I/C PE indicates that its use is not associated with any statistically significant changes in surgical outcomes,<sup>5</sup> although the study in question did not directly measure the circulatory effects. Group sizes for these studies were limited, ranging from 25 to 50.

### Conflict of interest

The authors declare no conflict of interest.

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### Sir, Selective serotonin reuptake inhibitors and perioperative bleeding in endoscopic dacryocystorhinostomy

During a recent endoscopic dacryocystorhinostomy procedure on a patient taking selective serotonin reuptake inhibitors (SSRIs), we noticed engorgement of the nasal mucosa as well as severe early post-op epistaxis. We write to remind readers of the potential association between SSRIs and perioperative hemorrhage.

SSRIs (e.g. Citalopram, Fluoxetine, Fluvoxamine, and Sertraline) are commonly used to treat mood disorders such as depression, anxiety, and obsessive-compulsive disorders. Their popularity in the treatment of mood disorders stems from their side effect profile, which is better tolerated than the classic treatments (monoamine oxidase inhibitors, tricyclic antidepressants, etc).

One of the side effects of SSRIs of particular interest to us is the increased risk of bleeding perioperatively. It has already been documented that SSRIs increase the risk of gastrointestinal bleeding<sup>1</sup> and intracranial hemorrhage.<sup>2</sup> de Abajo<sup>3</sup> summarizes the mechanism by which the SSRIs potentiate bleeding. Platelets cannot synthesize serotonin; rather, serotonin is stored in platelets and released by certain stimuli to induce vasoconstriction and platelet activation, and to enhance fibrin formation. This important neurotransmitter also helps in generating coated platelets, a subgroup of platelets with important procoagulant activity. As SSRIs inhibit the serotonin transporter, which is responsible for the uptake of serotonin into platelets, it could be predicted that SSRIs would deplete platelet serotonin, leading to a reduced ability to form clots and a subsequent increase in the risk of bleeding.

Although some clinical practice references suggest holding SSRIs for 2 or more weeks before surgery, it is difficult to frame a detailed strategy based on the available evidence.<sup>4,5</sup> Discontinuing SSRIs could lead to discontinuation syndrome, increased sensitivity to pain, and relapsing depression postoperatively. Furthermore, although the morbidity may be greater in patients under SSRIs, the mortality is still quite low.<sup>5</sup> Consultation with a psychiatrist is recommended when there is high risk of morbidity from perioperative bleeding.