Supporting information

Supplemental tables

Supplemental table 1. Explanation of the dentoalveolar procedures and terminology.

Terminology	Short description
Amalgam	An alloy of mercury and silver, used as dental restorative and filling
Amaigam	material, nowadays mainly replaced by composite (see below).
Alveolus	
	Tooth-bearing bony wall of the jaw.
Apical treatments versus not beyond the	The apical constriction is the narrowest part of the apex and is
apical constriction	located at the bottom part of the root of a tooth; apical treatments are treatments beyond the apical constriction.
Composite reconstruction	Restauration of a broken tooth using a composite filling material,
	that consists of a blend of tooth-colored plastic and powdered
	glass.
Crown	A (usually metal or ceramic) restorative cap placed over a
	damaged tooth.
Debridement	A procedure to remove plague and calculus that have accumulated
Deblidement	on the teeth.
Dental implantation	Tooth-root replacement by an artificial root (mostly consisting of
Dental Implantation	titanium) that is placed into the jaw.
Endodontic treatment	Treatment involving the inside of the tooth, i.e. the dental pulp
Lindodonne treatment	tissues present in pulp chamber and root canal.
Fibrin sealants	Agents comprised of human fibrinogen, human thrombin, and
FIDITII Sediditis	sometimes other added components, that mimic the final steps of
	the coagulation cascade to form a fibrin clot.
Hemostatic sponge	A resorbable spongiform material applied in a wound to stop a
nemostatic sponge	. 9
Mandibular block	bleeding. Local anesthesia of the inferior alveolar nerve at the mandibular
Mandibular block	foramen.
Manualihantan dan saturatian (af alumula bana	
Mandibular fenestration (of simple bone	A perforation in the mandibular bony cortex to reach a lesion in the mandibular marrow.
cyst)	
Minimally traumatizing techniques	Surgical techniques that aim to keep the surgical area (wound) as small as possible
Dit and firsure cooling	·
Pit and fissure sealing	The closure of pits and fissures in the teeth with a thin plastic
	coating to prevent accumulation of food and bacteria and thus

preventing caries.

Primary closure The complete closure of a surgical wound using sutures, as

opposed to healing by secondary intention.

Pulpotomy A procedure in which the pulp tissue is removed out of the crown,

i.e the visible part of the tooth, while leaving the pulp in the root

canal intact; mainly done in children.

Rootplaning Smoothing the exposed outer surfaces of the roots of the teeth,

usually done after the root scaling (see below).

Root scaling Removing dental plaque and calculus from the root of a tooth,

either supra-gingival or sub-gingival.

The application of a splint technique to fixate a mobile tooth after

a trauma.

Splinting (of traumatically displaced

alveolus and teeth)

Supplemental table 2. Quality of descriptions

Quality of descriptions	Guzeld emir	Inching olo	Sangw an	Abdelw ahab	Finuca ne	Vaisma n	Taranti no	Tay	Oda	Harms	McKelv v	Martin	Lee	Bartholo mew	Lario- nova	Suwan nuraks	Rakocz	Baudo
(Group of) patient(s)	•••	••0	•••	●00	••0	••0	●00	•••	••0	••0	•••	••0	•••	••0	•••	●00	●00	●00
Indication for procedure	•••	••0	•••	●00	•••	•••	●00	••0	•••	•••	••0	••0	••0	●00	••0	●00	•00	●00
Procedure	•••0	••••	••00	●000	••••	••00	●000	••••	•••0	••••	•••0	••••	••0	●000	••••	●000	●000	●000
Bleeding prevention measurements	•00	•••	••0	••0	••0	•00	•00	••0	••0	•00	•00	••0	•00	••0	••0	•••	•••	•••
Control group	NA	NA	NA	NA	NA	NA	••0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Follow-up	•••	●00	•••	●00	•••	•••	●00	••0	•••	●00	•••	••0	•••	••0	●00	••0	●00	●00
Outcome	●00	●00	●00	●00	●00	$\bullet \bullet \circ$	●00	•••	••0	••0	••0	•••	•••	•00	•••	•••	••0	••0
Total	•••	••0	•••	●00	•••	••0	●00	•••	•••	••0	•••	•••	•••	••0	•••	••0	••0	••0

^{••• =} good (5 points), ••• = medium (3 points), ••• = insufficient or not reported (1 point)

•••• = good (5 points), •••• = adequate (4 points), •••• = medium (2 points), •○○ = insufficient or not reported (1 point)

See for explanation of scores supplemental table 3.

NA = not applicable

Supplemental table 3. Risk of bias

	Abdelwahab	Tarantino	Baudo	Bartholomew	Rakocz	Suwannuraks
Bias: confounding?	1/5	2/5	1/5	1/5	1/5	1/5
Could patients switch intervention groups?	NAa	0/5	NAa	NAa	5/5	NAa
Were intervention discontinuations or switches	0/5	0/5	5/5	0/5	5/5	5/5
likely related to outcome?						
Was statistically corrected for confounders?	0/5	0/5	0/5	0/5	0/5	0/5
Were potential confounders correctly	0/5	0/5	0/5	0/5	0/5	0/5
measured?						
Bias: good participant selection?	5/5	1/5	5/5	5/5	5/5	5/5
Was the intervention successfully implemented	0/5	5/5	5/5	5/5	5/5	5/5
for most participants?						
Were important co-interventions balanced	NA ^a	0/5	NAa	NAa	NAª	NA ^a
across intervention groups?						
Were outcome data available for (nearly) all	0/5	5/5	5/5	5/5	5/5	5/5
patients?						
Were participants excluded due to missing	0/5	0/5	5/5	5/5	5/5	5/5
data on intervention status?						
Were participants excluded due to missing	0/5	0/5	5/5	5/5	5/5	5/5
data on other variables needed for analysis?						
Are proportions and reasons for missing data	NA^a	0/5	NA^a	NA^a	NA^a	NA^a
similar across interventions?						
Were outcome assessors aware of intervention?	0/5	0/5	0/5	0/5	0/5	0/5
Were the measures of outcome assessment	NA^a	0/5	NA^a	NAa	NAa	NA^a
comparable across intervention groups?						
Total points	6/50 (12%)	13/70 (19%)	31/100 (31%)	26/100 (26%)	36/105 (34%)	31/100 (31%)
Risk of bias	High	High	Medium	High	Medium	Medium

a) Only one intervention group. <30% =High risk of bias, 30-49% = Medium risk of bias, 50-69% = Acceptable risk of bias, ≥70% = Low risk of bias. See for explanation of points supplemental table 4.

NA: not applicable.

Supplemental table 4. Explanation of critical appraisal

Quality of description						
	1 point	1 point	2 points	3 points	4 points	5 points
Detailed description of patient (group)	Not reported	Missing: PC at intervention or ≥3	-	Missing 1 or 2 (not: PC at intervention)	-	PC at intervention; concomitant medication; age; disease duration; splenectomy status
Detailed description of ndication for procedure	Not reported	Missing: ≥3	-	Missing: 1 or 2	-	History, oral examination, dental problem leading to intervention, role of ITP
Detailed description of procedure	Not reported	Procedure vaguely	Procedure clearly but anesthetics not	-	Procedure clearly but anesthetics vaguely	Procedure + anesthetics clearly described
Detailed description of bleeding prevention measurements	Not reported	Not the specific substance or route of administration or not reported	-	No dose and/or duration or <3 of possible measures not specifically reported	-	Substance, route of administration, dose and duration
Detailed description of control group	Not reported	Missing: PC at intervention or ≥3	-	Missing 1-3 (no PC at intervention)	-	PC at intervention; concomitant medication; age; disease duration; splenectomy status
Follow-up duration	Not reported	<5 days	-	5-10 days	-	>10 days
Detailed description of outcome	Not reported	Bleeding or intervention not reported or missing ≥3	-	Missing: days after procedure or intervention not clearly described	-	Bleeding/infection, need for intervention + specifics, days after procedure, relevant othe information
Quality of design						
	0 points	1 point	2 points	3 points	4 points	5 points
Bias: confounding?	-	Other bleeding/infection risk factors not mentioned	Other bleeding risk factors only vaguely mentioned; infection not or vaguely	-	Other bleeding risk factors specifically mentioned; infection only vaguely	Other bleeding (e.g. use of anticoagulants) and/or infection risk factors specifically mentioned (e.g. concomitant use of immunosuppressive agents)
Could patients switch ntervention groups	Not reported or yes	-	-	-	-	No
Vere intervention liscontinuations or switches ikely related to outcome	Not reported or yes	-	-	-	-	No
Nas statistically corrected for confounders	Not reported or no	-	-	-	-	Yes
Were potential confounders correctly measured?	Not reported or no	-	-	-	-	Yes
Bias: good participant selection?	Not reported	Unclear why which patient gets which intervention	-	-	-	Predefined in- and exclusion criteria

Was the intervention successfully implemented for most participants	Not reported	<80%	-	-	-	≥80%	
Were important co- interventions balanced across intervention groups?	No or not reported	-	-	-	-	Yes	
Were outcome data available for (nearly) all patients?	Not reported or ≥60% missing	Available for 60-80%		-	Available for ≥80%	Available for ≥90%	
Were participants excluded due to missing data on intervention status?	Yes or not reported	-	-	-	-	No	
Were participants excluded due to missing data on other variables needed for analysis?	Yes or not reported	-	-	-	-	No	
Are proportions and reasons for missing data similar across interventions?	No or not reported		-	-	-	Yes	
Were outcome assessors aware of intervention?	Yes or not reported		-	-	-	No	
Total	Percentage of total	al points: >80% = Good;	70-79% = Acceptable ;	60-69% = Medium; <60% =	Insufficient		
ITP: immune thrombocytopenia, NA:	not applicable, PC: p	latelet count					

Supplemental table 5. Hemostatic strategies and anesthetic approach per platelet count category: adults

<u>Supplemental table</u>		ount at time						Total per	Number of
	Categorie					Reported otherwise	Not reported	hemostatic therapy /	clinically bleedings,
	<20 *10 ⁹ /L	20-50 *10 ⁹ /L	50-100 *10 ⁹ /L	> 150 *10 ⁹ /L	10-70 ° *10 ⁹ /L	80 ^b *10^9/L (9- 412) ^a		anesthetic approach (row total)	N (% of row total)
All procedures, N (% of row total (N=118))	13 (22)	2 ^{c,d} (3)	4 (7)	1 (2)	6 (10)	32 (53)	2 (3)	60	2 (3)
Hemostatic therapy, N (%	of column	total)							
TXA (systemic + local)									
Combined with surgical measures							1 (13)	1 (2)	0 (0)
TXA (systemic)									
Combined with surgical measures			1 (25)					1 (2)	0 (0)
TXA (local)									
Combined with surgical measures			1 (25)					1 (2)	0 (0)
Surgical measures NR			1 (25)					1 (2)	0 (0)
Aminocaproic acid (systemic)									
Surgical measures NR			1 (25)					1 (2)	0 (0)
Only surgical measures	11 (85)				6 (100)			17 (28)	0 (0)
Not reported	2 (15)	2 (100)		1 (100)		32 (100)	1 (88)	38 (63)	2 ^{c,d} (5)
Anesthetic approach, N (% of column	total)							
No anesthesia	1 (8)							1 (2)	0 (0)
Local infiltration	12 (92)		1 (25)				1 (50)	14 (23)	0 (0)
General				1 (100)				1 (2)	0 (0)
Mandibular block			1 (25)					1 (2)	0 (0)
Not reported		2 (100)	2 (50)		6 (100)	32 (100)	1 (38)	43 (72)	2 ^{c,d} (5)

a) Range. b) Median. c) Clinically relevant non-major bleeding occurred. d) Major bleeding occurred.

NR: not reported, TXA: tranexamic acid.

Supplemental table 6. Hemostatic strategies and anesthetic approach per platelet count category: children

<u>Supplemental tabl</u>		ount at time		Total per	Number of			
	Categorie	s				Not reported	hemostatic therapy /	clinically
	< 20 *10 ⁹ /L	20-50 *10 ⁹ /L	50-100 *10 ⁹ /L	100-150 *10 ⁹ /L	> 150 *10 ⁹ /L		anesthetic approach (row total)	bleedings, N (% of row total)
All procedures, N (% of row total (N=118))	1 (8)	2 (15)	1 (8)	2 (15)	1 (8)	6 (46)	13	0 (0)
Hemostatic therapy, N	(% of colum	n total)						
TXA (systemic + local)								
Combined with surgical measures	1 (100)						1 (8)	0 (0)
Not reported		2 (100)	1 (100)	2 (100)	1 (100)	6 (100)	12 (92)	0 (0)
Anesthetic approach, N	l (% of colu	mn total)						
No anesthesia		1 (50)				1 (17)	2 (15)	0 (0)
Local infiltration				1 (50)	1 (100)	3 (50)	5 (38)	0 (0)
General	1 (100)	1 (50)	1 (100)				3 (23)	0 (0)
Not reported				1 (50)		2 (33)	3 (23)	0 (0)

a) Range. b) Median. c) Clinically relevant non-major bleeding occurred. d) Major bleeding occurred.

NR: not reported, TXA: tranexamic acid.

Supplemental table 7. Characteristics per procedure.

Paper	Num	Age	Procedure description	PC at	Bleeding prevent	ive measures	Majo
Adults	-ber of case s	at proc e- dure (yrs)		proce -dure *10 ⁹ /L	To raise PC pre- op	Other hemostatic measures	r blee d- ings
Baudo ⁴⁸	4	NR	Dental extractions N=6	10-70	None	Peri-op: fibrin sealants Post-op: none	No
Bartholomew ⁴	1	33	Dental extractions	81	Prednisone (dose NR)	Peri-op: NR After: aminocaproic acid oral (4 g/day for 4 days)	No
Harms ⁵⁴	1	43	Dental extraction, minimally invasive	12	NR	NR	No
Inchingolo ⁵⁵	1	20	Dental extraction (impacted)	60	None	Peri-op: TXA IV (4 vials before procedure, 4 vials during procedure; 1 vial was 500ml 4.8%) + surgicel Post-op: TXA IV (4 vials)	No
Larionova ⁵⁶	1	26	Re-endodontic treatment + incision of subperiosteal abscess using laser	2	Prednisone IV (dose NR)	NR	No
Lee ³⁴	1	55	Dental extraction (left mandibular first molar)	35	None	NR	Yes
		+30 ^d	Dental implantation (left mandibular first molar)	22ª	None	NR	Yes (life threa tenin g)
		+120 d	Prosthetic implant restoration	NR	NR	NR	No*
Martin ⁵⁷	1	70	Dental extraction	55	Eltrombopag (50 mg/day)	Peri-op: hemostatic sponge Post-op: TXA mouthwash	No

Commented [WvD1]: 5.R. Soltani, A. Haghighat, M. Fanaei, and G. Asghari, "Evaluation of the effect of green tea extract on the prevention of gingival bleeding after posterior mandibular teeth extraction: a randomized controlled trial," Evidence-based Complementary and Alternative Medicine, vol. 2014

Commented [WvD2]: The dentist was unfamiliar with ITP; dus waarschijnlijk niet

McKelvy ⁵⁸	1	42	Dental extractions (≤3)	250	NR	NR	No
Rakocz ⁵⁰	6	NR	Dental extractions, minimal trauma N=11	<15	None	Peri-op: fibrin sealants Post-op: none	No
Sangwan ⁶⁰	1	19	Debridement, scaling and rootplaning	72	Prednisone (dose NR)	Peri-op: NR Post-op: TXA mouthwash	No
Suwannuraks ⁵	1	NR	Dental extractions, minimal trauma	NR	NR	Peri-op: fibrin sealants Post-op: TXA mouthwash + oral (10 mg/kg, 3x/day for 7 days), celluloid splint	No
Tarantino ³¹	24	NR	A range of procedures, including cleaning, crowns, prosthetics, dental extraction, and endodontics <i>N</i> =32	80 (range 9-412)	Danzol + platelet transfusion ^b (doses NR) IVIg ^b Methylpredniso- lone ^b (doses NR)	NR	No
Children							
Finucane ⁵²	1	13	Repositioning and splinting of traumatically displaced alveolus and teeth	70	IVIg (1 g/kg for 2 days)	NR	No
		NR	Endodontic treatment of nonvital replaced teeth	NR	NR	NR	Loss to FU
Guzeldemir ⁵³	1	11	Cleaning (neglected oral health)	NR	NR	NR	No
		+14 ^d	Scaling and rootplaning	144	NR	NR	No
		+63 ^d	Scaling and rootplaning	180	NR	NR	Loss to FU
Oda ⁵⁹	1	12	Dental extraction + incisional biopsy**	NR	IVIg (400 mg/kg for 5 days) + platelet transfusion (dose NR)	NR	No
		+30 ^d	Dental extraction + mandibular fenestration**	NR	Platelet transfusion (dose NR)	NR	No

		19	Dental extractions (≤3) + mandibular fenestration**	43	IVIg (400 mg/kg for 5 days) + platelet transfusion (dose NR)	NR	No
Tay ⁶¹	1	13	Dental extraction + cleaning and scaling	4	None ^{\$}	Peri-op: TXA sponges + collagen derivates Post-op: TXA oral (500mg 3x/day for 5 days)	No
-	2	5	Composite reconstruction + pulpotomy	30\$\$	NR	NR	No
	+ NR	Final rehabilitation (crowns, prosthetic space maintainers)	130	Prednisone (dose NR)	NR	No	
	11	Pit and fissure sealing + composite restorations + orthodontics	NR	NR	NR	No	
		7	Dental extractions (>3) + composite reconstruction + amalgam restoration + pulpotomy and crown	NR	NR	NR	No

^{**} Underlying hemorrhagic bone cyst

^{\$} Refractory of IVIg and prednisone, but this was available as rescue therapy

^{\$\$} Measured postoperatively because of minor bleeding

a. measured post-procedural in emergency room

b. n=1

c. requiring blood transfusion

d. number of days after 1st procedure

FU: follow-up, N: number, PC: platelet count, L: liter, pre-op: preoperatively, peri-op: perioperatively, post-op: postoperatively,

NR: not reported, N/A: not applicable, IVIg: intravenous immunoglobulins, TXA: tranexamic acid, IV: intravenous

Search details

PUBMED

("Purpura, Thrombocytopenic, Idiopathic" [Mesh] OR "immune thrombocytopenia" OR "immune thrombopenia" OR "immune thrombopenia" OR "autoimmune thrombopenia" OR "autoimmune thrombopenia" OR "autoimmune thrombocytopenia" OR "idiopathic thrombocytopenia" OR "idiopathic thrombocytopenia" OR "idiopathic thrombocytopenia" OR "idiopathic thrombopenia" OR "idiopathic thrombocytopenia" OR "idiopathic thrombocytopenia" OR "idiopathic thrombocytopenic" OR "idiopathic thrombocytopenic" OR "idiopathic thrombocytopenic purpura" OR "idiopathic thrombocytopenic purpura") AND (Dental OR dentist* OR dentition OR periodontal OR periodontic* OR prosthodontic OR prosthodontic OR endodontic OR endodontics OR tooth OR teeth OR molar OR molars OR "oral surgery" OR "oral surgical procedures" OR "operative dentistry" OR dentoalveolar OR orthognathic OR "surgery, oral" [MeSH Terms] OR "oral surgical procedures" [MeSH Terms] OR "tooth extraction" [MeSH Terms] OR "Dentistry, Operative" [MeSH] OR "Dentition" [MeSh])

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CINAHL

("immune thrombocytopenia" OR "immune thrombopenia" OR "immune thrombocytopenic" OR "immune thrombopenic" OR "autoimmune thrombocytopenia" OR "autoimmune thrombopenia" OR "autoimmune thrombocytopenia" OR "idiopathic thrombocytopenic" OR "idiopathic thrombocytopenic purpura" OR dentist* OR dentition OR periodontal OR periodontic* OR prosthodontic OR prosthodontic OR endodontics OR tooth OR teeth OR molar OR molars OR "oral surgery" OR "oral surgical procedures" OR "operative dentistry" OR dentoalveolar OR orthognathic OR (MH "Surgery, Oral+") OR (MH "Dentistry+") OR (MH "Dentistry, Operative+") OR (MH "Tooth Extraction") OR (MH "Molar+") OR (MH "Tooth+") OR (MH "Dentists+") OR (MH "Dentists+")

Cochrane

('immune thrombocytopenia' OR 'immune thrombopenia' OR 'immune thrombocytopenic' OR 'immune thrombocytopenia' OR 'autoimmune thrombocytopenia' OR 'autoimmune thrombocytopenia' OR 'autoimmune thrombocytopenia' OR 'idiopathic thrombo