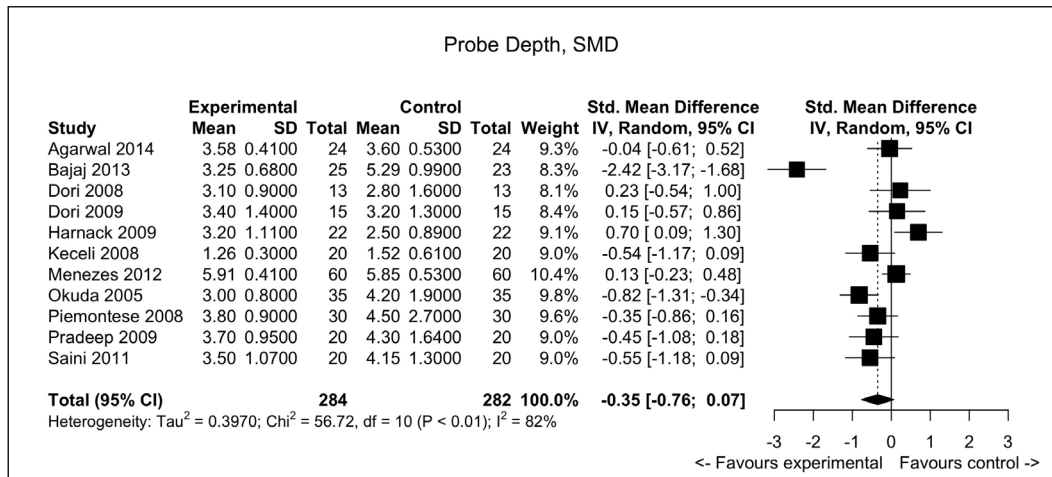
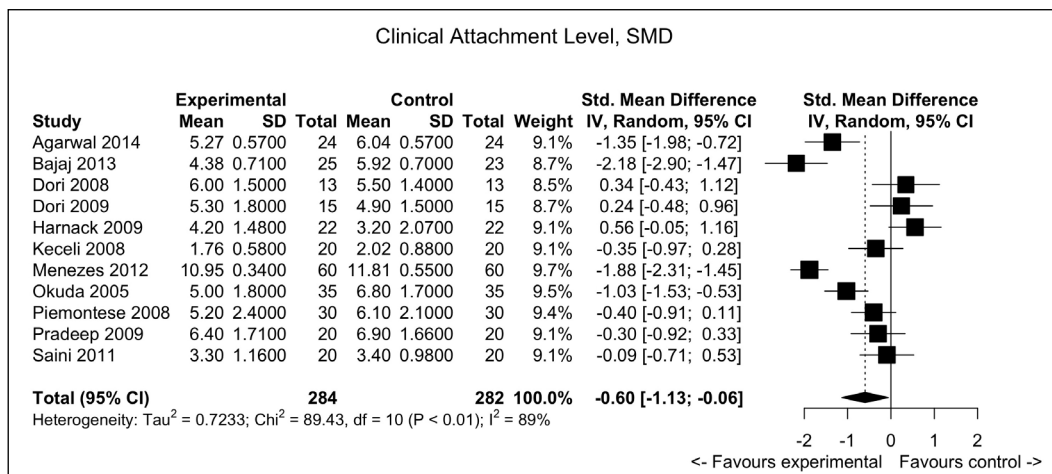


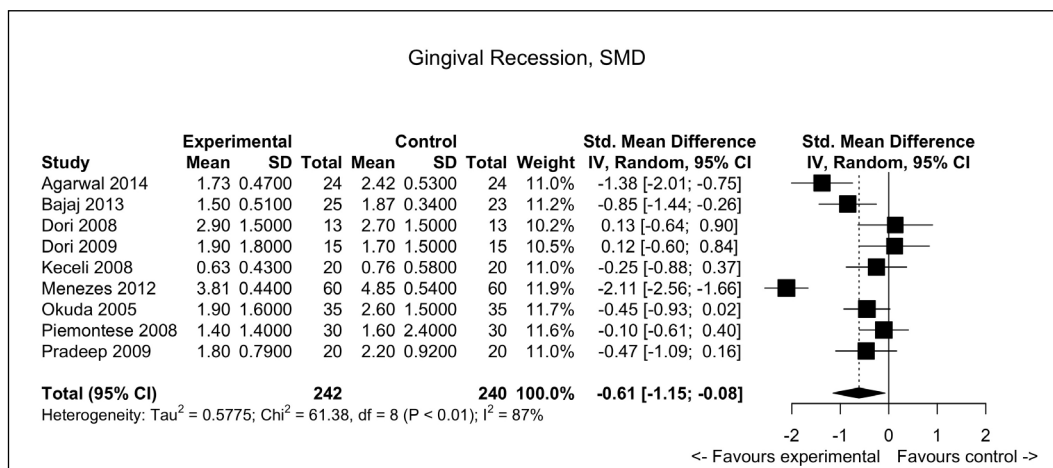
## Online Supplementary Content



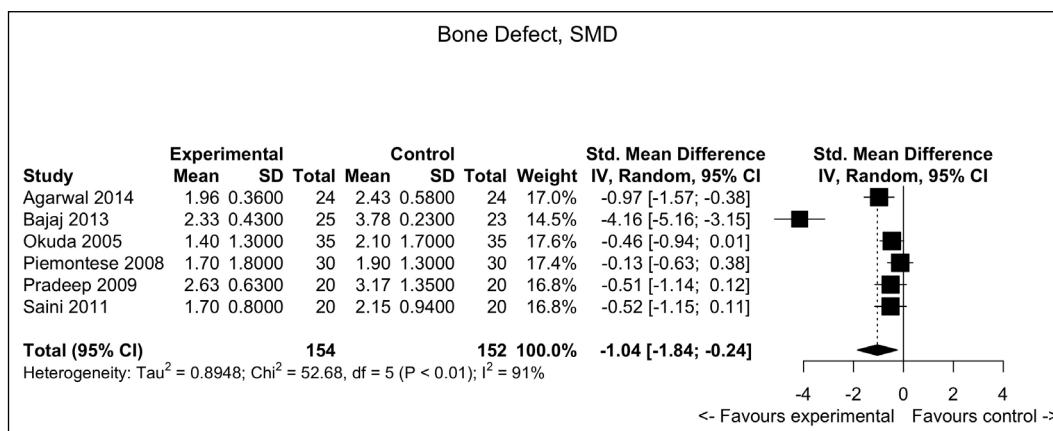
**Figure S1** - Periodontal defects: forest plot for probing depths.  
SMD: standardised mean difference; 95% CI: 95% confidence interval.



**Figure S2** - Periodontal defects: forest plot for clinical attachment level.  
SMD: standardised mean difference; 95% CI: 95% confidence interval.



**Figure S3** - Periodontal defects: forest plot for gingival recession.  
SMD: standardised mean difference; 95% CI: 95% confidence interval.



**Figure S4** - Periodontal defects: forest plot for bone defects.  
SMD: standardised mean difference; 95% CI: 95% confidence interval.

Table SI - Risk of bias table.

| Characteristics of studies                                |  | Risk of bias table                                 |   |
|---|--|--|---|
| Methods   | Participants   | Authors' judgement                                 | Support for judgement   |
| <b>Alissa 2010</b>  |  |  |   |
| <b>Characteristics of included studies</b>                |  |  |   |
| <b>Methods</b>  | This was a randomised, controlled, parallel-group study  |  |   |
| <b>Participants</b>                                       | Patients undergoing tooth extraction under intravenous sedation. Twelve patients (15 sockets) were randomly allocated to the PRP group and 11 patients (14 sockets) to the control group   |  |   |
| <b>Interventions</b>                                      | Autologous platelet concentrates were prepared from the patients' blood and autologous thrombin was produced   |  |   |
| <b>Outcomes</b>   | Outcome measures were: pain level, analgesic consumption, oral function (ability to eat food, swallowing, mouth opening and speech), general activity, swelling, bruising, bleeding, bad taste or halitosis, food stagnation, patient satisfaction, healing complications, soft tissue healing, trabecular pattern of newly formed bone in extraction sockets, trabecular bone volume, trabecular separation, trabecular length, trabecular width, and trabecular number |  |   |
| <b>Notes</b>  |  |  |   |
| <b>Methods</b>  | Defined as RCT, double masked  |  |   |
| <b>Participants</b>                                       | Patients with chronic periodontitis and periodontal intrabony defects  |  |   |
| <b>Interventions</b>                                      | Deminerilised freeze-dried bone allograft (DFDBA) + PRP compared to DFDBA + saline solution  |  |   |
| <b>Outcomes</b>   | Probing pocket depth, CAL, REC and radiographic measurements were made at baseline and at 12 months  |  |   |
| <b>Agarwal 2014</b>                                       |  |  |   |
| <b>Characteristics of included studies</b>                |  |  |   |
| <b>Methods</b>  | Random sequence generation   |  |   |
| <b>Participants</b>                                       | Allocation concealment   |  |   |
| <b>Interventions</b>                                      | Blinding of participants and personnel (performance bias)  |  |   |
| <b>Outcomes</b>   | Blinding of outcome assessment   |  |   |
| <b>Notes</b>  |  |  |   |
| <b>Methods</b>  | Random sequence generation   |  |   |
| <b>Participants</b>                                       | Allocation concealment   |  |   |
| <b>Interventions</b>                                      | Blinding of participants and personnel (performance bias)  |  |   |
| <b>Outcomes</b>   | Blinding of outcome assessment   |  |   |
| <b>Risk of bias table</b>                                 |  |  |   |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Support for judgement</b>                       | <b>Support for judgement</b>  |
| Random sequence generation (selection bias)               | Low risk   | Randomised by the flip of coin                     | A computer-generated randomisation schedule was created by a statistician   |
| Allocation concealment (selection bias)                   | Unclear risk   | No information provided                            | The randomisation codes were enclosed in sealed, opaque and sequentially numbered envelopes. The patient's allocation to either group was revealed by the investigator just before venous cannulation on the day of the patient's appointment for extraction  |
| Blinding of participants and personnel (performance bias) | Unclear risk   | No information provided                            | Open label. The patients were then randomly allocated to one of two groups, test or control receiving PRP in the extraction socket or treated in the conventional manner without PRP. Blood samples were only taken for patients randomised to the PRP group. The sockets in patients allocated to the PRP group were filled with PRP. In the control group, no PRP was added                                     |
| Blinding of outcome assessment (detection bias)           | Low risk   | The examiner was blind to the treatment assignment | No information provided   |
| Incomplete outcome data (attrition bias)                  | Low risk   | All patients completed the study                   | Two patients from the control group dropped out of the study. The latter did not attend any of the scheduled appointments following tooth extraction, and were recalled on several occasions, but no response was obtained. Additionally, one more patient from the control group and four patients from the PRP group did not attend their appointments at 12 weeks after extraction for radiographic assessment |
| Selective reporting (reporting bias)                      | Low risk   | Outcomes reported as described in methods          | Outcomes reported as described in methods   |
| Other bias  | Low risk   | No other potential sources of bias identified      | No other potential sources of bias identified   |

Continued on next page.

Table S1 – Risk of bias table. (continued from previous page)

| Arenaz-Bua 2012   |   | Bajaj 2013  |   |
|---|---|---|---|
| Methods   | A prospective, controlled (with a split-mouth design) and double blinded study  | Methods   | A randomised study  |
| Participants  | The defect that remains after extraction of mandibular impacted third molar. The study design is based on the extraction of two mandibular impacted third molars in a patient during the same surgical procedure by the same surgeon  | Participants  | Seventy-two mandibular degree II furcation defects either autologous PRF with open flap debridement (OFD, 24 defects) or autologous PRP with OFD (25), or OFD alone (23)  |
| Interventions   | The patients were divided into 5 groups. In two groups (groups 1 and 2) we compared the control socket (no biomaterial) with the study socket (platelet-rich plasma). These two groups differ in the methodology used in obtaining the PRP (methods 1 and 2 respectively). In groups 3, 4 and 5, we administered PRP obtained by the same method (method 1) on the control side, compared with the study side in which we administered a combination of PRP with another product.   | Outcomes  | The primary outcome of the study was complete clinical closure of the defect and bone defect fill. The secondary outcomes included RVCAL, RHCAL, PD, GML, PJ and SBI. Clinical and radiological parameters such as probing depth, relative vertical clinical attachment level and horizontal clinical attachment level along with gingival marginal level were recorded at baseline and 9 months post-operatively |
| Outcomes  | <ul style="list-style-type: none"> <li>- autologous bone obtained from aspiration and filtering during the osteotomy (group 3)</li> <li>- a synthetic material based on synthetic calcium hydroxyapatite (Novabone® Porex Surgical Inc, MTF, USA) (group 4)</li> <li>- allogenic demineralised bone matrix (DBX®, Synthes, USA) (group 5)</li> </ul>  | Notes   |   |
| Risk of bias table  | <p>"We assessed several response variables on the postoperative evolution in two ways. On the one hand, through a clinical questionnaire that each patient completed daily throughout the first postoperative week. This questionnaire assessed pain (using two methods: an analog pain scale from 1 to 10 points, and the number of analgesics to control pain consumed on each of the first 7 postoperative days) as well as the number of days that passed until the restart of a normal diet. On the other hand, a single clinical observer performed a clinical assessment in the 7th postoperative day. This observer assessed the most inflamed side, decreased mouth opening measured in mm compared to that observed at the time of the intervention, and the occurrence of infectious events. In addition we compared the bone formation on both sides using digital panoramic obtained in the immediate postoperative period, at the 3 and in 6 months after the surgery. The measurement of bone neoformation was performed subjectively but blindly, recording the score in a radiopaque increasing scale (1, minimal or radiopaque bone formation 5, maximum or radiopaque bone formation) by 4 blinded observers, who were staff surgeons of the research team."</p> | Risk of bias table  |   |
| Bias  | Authors' judgement  | Support for judgement   | Notes   |
| Random sequence generation (selection bias)               | Unclear risk  | The study is defined as randomised, but no further information is provided  |   |
| Allocation concealment (selection bias)                   | Unclear risk  | As above  |   |
| Blinding of participants and personnel (performance bias) | Unclear risk  | The study is defined as double blind, but no further information is provided  |   |
| Blinding of outcome assessment (detection bias)           | Low risk  | This clinical observer was blinded for whether or not socket grafting was performed, and the type of grafted material. The measurement of bone neoformation was performed subjectively but blindly, recording the score in a radiopaque increasing scale by 4 blinded observers |   |
| Incomplete outcome data (attrition bias)                  | Unclear risk  | No information on withdrawals provided  |   |
| Selective reporting (reporting bias)                      | Low risk  | Outcomes reported as described in methods   |   |
| Other bias  | Low risk  | No other potential sources of bias identified   |   |
| Bias  | Authors' judgement  | Support for judgement   | Notes   |
| Random sequence generation (selection bias)               | Low risk  | The selected sites were divided randomly (computer-generated tables) into the control and test groups (PRF or PRP)  |   |
| Allocation concealment (selection bias)                   | Unclear risk  | No information provided   |   |
| Blinding of participants and personnel (performance bias) | Unclear risk  | "Patients were blinded for allocation to a particular group and treatment". Not clear if the personnel was blind (see also below)   |   |
| Blinding of outcome assessment (detection bias)           | Low risk  | One operator (PB) performed all the surgeries while another operator (ARP) performed all the clinical and radiographic measurements without knowledge of the groups   |   |
| Incomplete outcome data (attrition bias)                  | Low risk  | Thirty-seven (72 sites) of 42 subjects completed the study  |   |
| Selective reporting (reporting bias)                      | Low risk  | Outcomes reported as described in methods   |   |
| Other bias  | Low risk  | No other potential sources of bias identified   |   |

Continued on next page.

**Table SI - Risk of bias table. (continued from previous page)**

| Dori 2008   |  | Dori 2009                 |  |
|---|--|---------------------------|--|
| <b>Methods</b>  | Prospective, randomised, controlled clinical trial. Parallel-design study (i.e. 13 patients in each group)   | <b>Methods</b>            | Using a randomised block approach, the defects were randomly assigned before surgery to the two treatment groups   |
| <b>Participants</b>                                       | Twenty-six patients suffering from advanced chronic periodontitis, and each of whom displayed one advanced intrabony defect  | <b>Participants</b>       | Thirty patients with advanced chronic periodontal disease and displaying one intrabony defect  |
| <b>Interventions</b>                                      | Enamel matrix protein derivative (EMD) + natural bone mineral (NBM) + platelet-rich plasma (PRP) or EMD + NBM  | <b>Interventions</b>      | PRP + anorganic bovine bone mineral (ABBM) or ABBM alone   |
| <b>Outcomes</b>   | The following clinical parameters were evaluated at baseline and at 1 year after treatment: plaque index (PI), gingival index (GI), bleeding on probing (BOP), probing depth (PD), gingival recession (GR) and clinical attachment level (CAL). The primary outcome variable was CAL | <b>Outcomes</b>           | The following clinical parameters were evaluated at baseline and 1 year after treatment: plaque index (PI), gingival index (GI), bleeding on probing (BOP), probing depth (PD), gingival recession (GR), and clinical attachment level (CAL). The primary outcome variable was CAL |
| <b>Notes</b>  |  | <b>Notes</b>              |  |
| <b>Risk of bias table</b>                                 |  | <b>Risk of bias table</b> |  |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Authors' judgement</b> | <b>Support for judgement</b>   |
| Random sequence generation (selection bias)               | Low risk   | Low risk                  | A randomised block approach. Blocking to control for the effects of the prognostic variables, the distance from the alveolar bone crest to the bottom of the defect (INTRA) and CAL were used to decrease outcome variability  |
| Allocation concealment (selection bias)                   | Unclear risk   | Unclear risk              | No information provided  |
| Blinding of participants and personnel (performance bias) | High risk  | High risk                 | Open label   |
| Blinding of outcome assessment (detection bias)           | Unclear risk   | Unclear risk              | No information provided  |
| Incomplete outcome data (attrition bias)                  | Low risk   | Low risk                  | All patients complied with the monthly recall appointments throughout the 1-year study period. No dropouts occurred  |
| Selective reporting (reporting bias)                      | Low risk   | Low risk                  | Outcomes reported as described in methods  |
| Other bias  | Low risk   | Low risk                  | No other potential sources of bias identified  |

*Continued on next page.*

Table S1 – Risk of bias table. (continued from previous page)

| Dutta 2015  |  | Eskan 2014                |  |
|---|--|---------------------------|--|
| <b>Methods</b>  | Randomised study (in the abstract authors state that the patients would be allocated to the groups randomly)   | <b>Methods</b>            | "Randomised, controlled, masked clinical study"  |
| <b>Participants</b>                                       | This study involved both male and female patients, who were referred to the department of oral and maxillofacial surgery for removal of mandibular 3 <sup>rd</sup> molar   | <b>Participants</b>       | Patients with one ridge-deficient site treatment planned to receive a dental implant that was judged to have inadequate horizontal dimensions for implant placement  |
| <b>Interventions</b>                                      | Group A consists of the 30 patients where PRP will be placed in the extraction socket before closure of the socket. Group B consists of 30 patients who will be the control group where the extraction sockets will be closed without any intra socket medications                               | <b>Interventions</b>      | Fourteen patients received a cancellous allograft (CAN group) and the other 14 received a cancellous allograft mixed with PRP (PRP group)  |
| <b>Outcomes</b>   | Patient of both the groups will be assessed on day 3, 7 and 14 for dry socket and soft tissue healing. Radiographic assessment for bone healing will be done at 3 <sup>rd</sup> week, 2 <sup>nd</sup> month and 4 <sup>th</sup> month. All these evaluations using specific criteria and indexes | <b>Outcomes</b>           | The primary clinical outcome variable was crestal horizontal ridge width, and the power analysis was based on this variable. The primary histologic outcome variable was percentage of vital bone. Other variables evaluated included horizontal ridge width 5 mm apical to the crest, vertical ridge dimension change, loss of augmented ridge width, and histologic assessment of non-vital bone (residual graft particles) and trabecular space |
| <b>Notes</b>  |  | <b>Notes</b>              |  |
| <b>Risk of bias table</b>                                 |  | <b>Risk of bias table</b> |  |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Authors' judgement</b> | <b>Support for judgement</b>   |
| Random sequence generation (selection bias)               | High risk  | Low risk                  | Patients were randomly selected using a coin toss  |
| Allocation concealment (selection bias)                   | High risk  | Unclear risk              | No information provided  |
| Blinding of participants and personnel (performance bias) | High risk  | Unclear risk              | No information provided  |
| Blinding of outcome assessment (detection bias)           | Unclear risk   | Low risk                  | All measurements were performed by a masked examiner, who was unaware of the treatment assignment at all time points   |
| Incomplete outcome data (attrition bias)                  | Unclear risk   | High risk                 | Of the 32 patients entered in this study, four were excluded, for a total of 28 included for data analysis. One patient failed to return for implant placement (CAN group), and three did not follow the post-treatment protocol (one CAN and two PRP)   |
| Selective reporting (reporting bias)                      | Low risk   | Low risk                  | Outcomes reported as described in methods  |
| Other bias  | Low risk   | Low risk                  | No other potential sources of bias identified  |

Continued on next page.

**Table S1** – Risk of bias table. (continued from previous page)

| <b>Geurs 2014</b>   |  | <b>Harmack 2009</b>                                       |   |
|---|--|---|---|
| <b>Methods</b>  | "Participants were randomised into 4 groups"   | <b>Methods</b>  | A prospective randomised double blind clinical trial  |
| <b>Participants</b>                                       | 41 patients whose treatment plan included extraction of anterior or premolar teeth   | <b>Participants</b>                                       | Twenty-two patients showing contralateral intrabony defects were included   |
| <b>Interventions</b>                                      | 4 groups: 1) collagen plug (control); 2) mineralised freeze-dried bone allograft (FDBA/beta-tricalcium phosphate) collagen plug; 3) FDBA/beta-tricalcium phosphate collagen plug + PRP; 4) FDBA/ $\beta$ -tricalcium phosphate + rhPDGF-BB/collagen plug | <b>Interventions</b>                                      | Defects were randomised to $\beta$ -TCP (Cerasorb <sup>®</sup> ) in combination with PRP (test) or alone (control)  |
| <b>Outcomes</b>   | Histomorphometric analysis   | <b>Outcomes</b>   | Probing pocket depth (PPD), clinical attachment level (CAL), and relative AL (RAL) were assessed at the first, initial, reevaluation (or basis examinations) and 6 months after surgery |
| <b>Notes</b>  |  | <b>Notes</b>  |   |
| <b>Risk of bias table</b>                                 |  | <b>Risk of bias table</b>                                 |   |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Bias</b>   | <b>Authors' judgement</b>   |
| Random sequence generation (selection bias)               | High risk  | Random sequence generation (selection bias)               | Low risk  |
| Allocation concealment (selection bias)                   | High risk  | Allocation concealment (selection bias)                   | Unclear risk  |
| Blinding of participants and personnel (performance bias) | High risk  | Blinding of participants and personnel (performance bias) | Unclear risk  |
| Blinding of outcome assessment (detection bias)           | Low risk   | Blinding of outcome assessment (detection bias)           | Unclear risk  |
| Incomplete outcome data (attrition bias)                  | Low risk   | Incomplete outcome data (attrition bias)                  | Unclear risk  |
| Selective reporting (reporting bias)                      | Low risk   | Selective reporting (reporting bias)                      | Low risk  |
| Other bias  | Low risk   | Other bias  | Low risk  |
| <b>Support for judgement</b>                              | The study is defined as randomised in the abstract, and in the M&M there is a sub-heading "randomisation". No further information were provided  | <b>Support for judgement</b>                              | A random list was established by an independent investigator who did not participate in the clinical part of the study  |
|   | Allocation was probably not conceal  |   | No information provided   |
|   | Open label   |   | Defined as double blind, but no information provided  |
|   | Laboratory technicians were blinded and unaware of specimen group  |   | No information provided   |
|   | Outcome data available from all the included patients  |   | No information provided on dropouts and rates of study completion   |
|   | Outcomes reported as described in methods  |   | Outcomes reported as described in methods   |
|   | No other potential sources of bias identified  |   | No other potential sources of bias identified   |

Continued on next page.







**Table S1 - Risk of bias table. (continued from previous page)**

| <b>Ogundipe 2011</b>   |  |
|--|--|
| <b>Methods</b>   | <b>Methods</b>   |
| <p><b>Participants</b> Randomised prospective comparative study Patients with periapical cystic lesions involving the maxillary and mandible anterior region</p> <p><b>Interventions</b> In the first group (study group) the bone defect was filled with PRP, calcium sulfate and autologous bone graft. In the second group (control group) defect was allowed to heal without PRP, calcium sulfate and autogenous bone graft</p> <p><b>Outcomes</b> Digital orthopantomogram (OPG) were taken to analyse the bone density and bone regeneration</p> <p style="text-align: center;"><b>Notes</b></p>         | <p>A prospective randomised comparative clinical study</p> <p>Consecutive patients requiring surgical extraction of a single impacted third molar PRP or no treatment</p> <p>The outcome variables were pain, swelling, and maximum mouth opening, which were measured using a 10-point visual analog scale, tape, and millimeter caliper, respectively. Socket healing was assessed radiographically by allocating scores for lamina dura, overall density, and trabecular pattern</p> <p style="text-align: center;"><b>Notes</b></p>  |
| <b>Risk of bias table</b>  |  |
| <p><b>Bias</b></p> <p>Random sequence generation (selection bias)</p> <p>Allocation concealment (selection bias)</p> <p>Blinding of participants and personnel (performance bias) (detection bias)</p> <p>Incomplete outcome data (attrition bias)</p> <p>Selective reporting (reporting bias)</p> <p>Other bias</p>   | <p><b>Authors' judgement</b></p> <p>Unclear risk</p> <p>Unclear risk</p> <p>High risk</p> <p>Low risk</p> <p>Unclear risk</p> <p>Low risk</p>  |
| <p><b>Support for judgement</b></p> <p>Twenty patients were randomly assigned into two groups with 10 patients each forming the study and control groups.</p> <p>No information provided</p> <p>Open label</p> <p>The measurement of bone formation was performed subjectively but blindly, recording the score in a radiopacity increasing scale by four independent blinded observers.</p> <p>All patients complied with the recall appointments throughout the study period. No dropouts reported</p> <p>Outcomes reported as described in methods</p> <p>No other potential sources of bias identified</p> | <p><b>Support for judgement</b></p> <p>The patients were randomly allocated by the Unit House Officer through a single-blind technique where the operator was blinded to the patient allocation. The patients were allocated alternatively into test and control groups</p> <p>As above</p> <p>The test group received topical application of PRP, whereas the control group was left to heal without PRP</p> <p>No information provided</p> <p>No information provided on dropouts and rates of study completion</p> <p>Outcomes reported as described in methods</p> <p>Unbalance between groups (duration of surgery significantly higher in control group)</p> |
| <p><b>Bias</b></p> <p>Random sequence generation (selection bias)</p> <p>Allocation concealment (selection bias)</p> <p>Blinding of participants and personnel (performance bias) (detection bias)</p> <p>Incomplete outcome data (attrition bias)</p> <p>Selective reporting (reporting bias)</p> <p>Other bias</p>   | <p><b>Authors' judgement</b></p> <p>Low risk</p> <p>Low risk</p> <p>High risk</p> <p>Unclear risk</p> <p>Unclear risk</p> <p>Low risk</p> <p>High risk</p>   |
| <p><b>Support for judgement</b></p> <p>Random sequence generation</p> <p>Allocation concealment (selection bias)</p> <p>Blinding of participants and personnel (performance bias) (detection bias)</p> <p>Incomplete outcome data (attrition bias)</p> <p>Selective reporting (reporting bias)</p> <p>Other bias</p>   | <p><b>Support for judgement</b></p> <p>The patients were randomly allocated by the Unit House Officer through a single-blind technique where the operator was blinded to the patient allocation. The patients were allocated alternatively into test and control groups</p> <p>As above</p> <p>The test group received topical application of PRP, whereas the control group was left to heal without PRP</p> <p>No information provided</p> <p>No information provided on dropouts and rates of study completion</p> <p>Outcomes reported as described in methods</p> <p>Unbalance between groups (duration of surgery significantly higher in control group)</p> |

Continued on next page.

Table S1 – Risk of bias table. (continued from previous page)

| Okuda 2005  |  | Piemontese 2008   |  |
|---|--|---|--|
| Methods   | Defined as randomised in the abstract  | Methods   | Randomised, double-masked, clinical trial  |
| Participants  | Seventy interproximal, intrabony osseous defects in 70 healthy, non-smoking subjects diagnosed with chronic periodontitis were included in this study  | Participants  | Sixty interproximal, intrabony osseous defects in 60 healthy, non-smoking subjects diagnosed with chronic periodontitis were treated in this study   |
| Interventions   | The aim of the present controlled clinical study was to compare platelet-rich plasma (PRP) combined with a biodegradable ceramic, porous hydroxyapatite (HA) with a mixture of HA and saline in the treatment of human intrabony defects. Thirty-five subjects each were randomly assigned to either the test group (PRP and HA) or control group (HA with saline) | Interventions   | Thirty subjects each were randomly assigned to platelet-rich plasma (PRP) combined with a demineralised freeze-dried bone allograft (DFDBA) or the control group (DFDBA + saline)  |
| Outcomes  | Gingival index, bleeding on probing, probing depth, clinical attachment level, and intrabony defect fill; clinical and radiographic measurements were determined at baseline and the 12-month evaluation   | Outcomes  | The outcome variables included: the gingival index (GI); plaque index (PI); probing depth (PD); clinical attachment level (CAL); gingival recession (REC), considered the distance of the gingival margin from the cemento-enamel junction (CEJ), and bleeding on probing (BOP). Clinical and radiographic measurements were made at baseline and at the 12-month evaluation |
| Notes   |  | Notes   |  |
| Risk of bias table  |  | Risk of bias table  |  |
| Bias  | Authors' judgement   | Bias  | Authors' judgement   |
| Random sequence generation (selection bias)               | High risk  | Random sequence generation (selection bias)               | Low risk   |
| Allocation concealment (selection bias)                   | High risk  | Allocation concealment (selection bias)                   | Unclear risk   |
| Blinding of participants and personnel (performance bias) | High risk  | Blinding of participants and personnel (performance bias) | Unclear risk   |
| Blinding of outcome assessment (detection bias)           | Low risk   | Blinding of outcome assessment (detection bias)           | Low risk   |
| Incomplete outcome data (attrition bias)                  | Low risk   | Incomplete outcome data (attrition bias)                  | Low risk   |
| Selective reporting (reporting bias)                      | Low risk   | Selective reporting (reporting bias)                      | Low risk   |
| Other bias  | Low risk   | Other bias  | Low risk   |
|   | <b>Support for judgement</b><br>The study is defined as randomised in the abstract, but no other information is provided   |   | <b>Support for judgement</b><br>Randomisation was performed by the toss of a coin immediately following defect debridement   |
|   | As above   |   | No information provided  |
|   | Open label   |   | Defined as double-masked, but not enough information are provided. One hour before surgery, 60 mL blood was drawn from all subjects through a venipuncture in the antecubital vein, so it is likely that participants were blinded, but this is not clear for personnel  |
|   | All radiographs were evaluated by a single examiner who was masked to the treatment group to which a patient was assigned.   |   | On the day of the surgical procedure, baseline clinical measurements were recorded by the same calibrated examiner (SDA) masked to the treatment; measurements were repeated 12 months post-surgery using the same type of probe   |
|   | "Each subject participating in the study demonstrated excellent oral hygiene and a generally healthy gingival condition throughout the entire study"   |   | All enrolled subjects completed the study  |
|   | Outcomes reported as described in methods  |   | Outcomes reported as described in methods  |
|   | No other potential sources of bias identified  |   | No other potential sources of bias identified  |

Continued on next page.

**Table S1** – Risk of bias table. (continued from previous page)

| Pradeep 2009  |  | Saini 2011  |  |
|---|--|---|--|
| <b>Methods</b>  | A randomised study. Split-mouth design   | <b>Methods</b>  | A randomised study   |
| <b>Participants</b>                                       | 40 mandibular degree II furcation defects  | <b>Participants</b>                                       | Twenty systemically healthy consecutive patients showing clinical evidence of almost identical bilateral infrabony defects, as determined by clinical and radiographic evaluation, were selected   |
| <b>Interventions</b>                                      | Autologous PRP or open flap debridement (OFD)  | <b>Interventions</b>                                      | The purpose of this study was to compare the efficacy of autologous PRP in combination with $\beta$ -tricalcium phosphate ( $\beta$ -TCP) versus $\beta$ -TCP alone in the treatment of human infrabony defects  |
| <b>Outcomes</b>   | Plaque index, sulcus bleeding index, vertical probing depth, relative vertical and horizontal clinical attachment level and gingival marginal level were recorded at baseline and 6 months post-operatively. Vertical and horizontal defect depths were also recorded using spiral computed tomography | <b>Outcomes</b>   | The right infrabony defects of the patient were designated as Group A and the left infrabony defects of the same patient were designated as Group B. Group A was control side where defects were treated by the placement of $\beta$ -TCP graft alone                |
| <b>Notes</b>  |  | <b>Notes</b>  |  |
| <b>Risk of bias table</b>                                 |  | <b>Risk of bias table</b>                                 |  |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Bias</b>   | <b>Authors' judgement</b>  |
| Random sequence generation (selection bias)               | Low risk   | Random sequence generation (selection bias)               | Unclear risk   |
| Allocation concealment (selection bias)                   | Low risk   | Allocation concealment (selection bias)                   | Unclear risk   |
| Blinding of participants and personnel (performance bias) | Low risk   | Blinding of participants and personnel (performance bias) | Low risk   |
| Blinding of outcome assessment (detection bias)           | Low risk   | Blinding of outcome assessment (detection bias)           | Low risk   |
| Incomplete outcome data (attrition bias)                  | Low risk   | Incomplete outcome data (attrition bias)                  | Unclear risk   |
| Selective reporting (reporting bias)                      | Low risk   | Selective reporting (reporting bias)                      | Low risk   |
| Other bias  | Low risk   | Other bias  | Low risk   |
| <b>Support for judgement</b>                              |  | <b>Support for judgement</b>                              |  |
|   | The selected sites were divided randomly (toss of a coin) into control and test sites according to a split-mouth design, where the control sites were treated with OFD and the test sites with flap surgery, followed by placement of autologous PRP   |   | The treatment order followed was random  |
|   | A coin toss (done by a person other than the surgeon and the examiner) was used to determine the site to be operated first   |   | No information provided  |
|   | On the day of surgery, 20 mL blood was drawn from each patient by venipuncture of the antecubital vein. Patients underwent the two surgical procedures at the same appointment   |   | There was single observer other than the operator who performed all clinical measurements, preoperatively as well as postoperatively, in the whole study without the knowledge of the treatment groups. The patients were also not aware of the case or control side |
|   | The test and control sites were not revealed to the patients   |   | Blinding of observer/examiner as well as statistician was done   |
|   | One surgeon performed all the surgeries. An examiner other than the operator performed all the clinical measurements without knowledge of the treatment groups   |   | No information provided on dropouts and rates of study completion  |
|   | All patients completed the study   |   | Outcomes reported as described in methods  |
|   | Outcomes reported as described in methods  |   | No other potential sources of bias identified  |

Continued on next page.



**Table SI - Risk of bias table. (continued from previous page)**

|   |  |   |  |
|---|--|---|--|
| <b>Wittfang 2003</b>                                      |  |   |  |
| <b>Methods</b>  | A randomised prospective trial   |   |  |
| <b>Participants</b>                                       | 45 sinus floor elevations were performed in 39 patients  |   |  |
| <b>Interventions</b>                                      | In 22 sites, PRP was added to the $\beta$ -tricalciumphosphate ( $\beta$ -TCP) granules, while in 23 sites $\beta$ -TCP without PRP was used |   |  |
| <b>Outcomes</b>   | Bone regeneration  |   |  |
| <b>Notes</b>  |  |   |  |
| <b>Risk of bias table</b>                                 |  |   |  |
| <b>Bias</b>   | <b>Authors' judgement</b>  | <b>Support for judgement</b>  |  |
| Random sequence generation (selection bias)               | Unclear risk   | Study defined as randomised in the abstract, but no further information were provided |  |
| Allocation concealment (selection bias)                   | Unclear risk   | See above   |  |
| Blinding of participants and personnel (performance bias) | High risk  | Open label  |  |
| Blinding of outcome assessment (detection bias)           | Unclear risk   | No information provided   |  |
| Incomplete outcome data (attrition bias)                  | Low risk   | All osseous biopsies of test and control groups could be included in the study        |  |
| Selective reporting (reporting bias)                      | Low risk   | Outcomes reported as described in methods   |  |
| Other bias  | Low risk   | No other potential sources of bias identified   |  |