Periodontology and implant dentistry, including mini dental implants, have been widely used to support overdentures 

...are often made of a titanium alloy (Ti 6Al-4 V ELI) as opposed to commercially pure titanium (type 4) used in conventional dental implants. They have several advantages over standard implants, such as lower costs, ease of placement, and reduced surgical intervention. Mini dental implants have been in use for the last 12 years, and they are often used in conjunction with overdentures to provide additional support.

In a meta-analysis of 24 studies, which included 2494 mini implants and 386 standard implants, the clinical outcomes were compared. Of the 24 selected studies, four were randomized controlled trials (RCTs) and 20 were prospective studies. RCTs are considered the gold standard for clinical research as they provide the most reliable evidence for the effectiveness of interventions. Prospective studies, on the other hand, can provide valuable insights into clinical outcomes and are essential for establishing the effectiveness of new treatments.

In this meta-analysis, the clinical outcomes of mini dental implants were compared to those of standard implants. The patients were provided with 2 implants 2.5 mm in diameter (MicroPlant; Brasseler, Lemgo, Germany) in a 2-stage procedure in the mandible. The primary outcome measures were success rates, which were evaluated at 1 year and show a considerable improvement over the conventional approach.

The results of this meta-analysis showed that mini dental implants have a comparable success rate to standard implants, with a survival rate of 95.5% after 1 year. The use of mini implants minimizes the duration of the treatment and reduces postoperative complications.

Overall, mini dental implants, when used in conjunction with overdentures, offer a viable alternative to conventional implants for patients seeking additional support. They are less invasive, cost-effective, and can provide a comfortable and stable solution for patients with edentulous mandibles. Future research should focus on improving the long-term success rates of mini dental implants and evaluating the impact of different retention systems on clinical outcomes.