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Write originally.

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ABSTRACT

Using sentences published by others without proper citation is plagiarism. This exercise is dangerous. This paper explores a recent work which apparently looked as a new work but was actually taken from two other papers which were published in orthopaedic journals. Such practices enhance the Curriculum Vitae of the writer but waste the time of the reader and create duplicate data in meta-analysis. One has to strive to write originally.

Keywords: plagiarism, wasting reader's time, Meta-analysis, unethical, originally, write

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It was a rude shock for me when going through an article. Recently while I was reviewing the literature, for primary cemented hemiarthroplasty for unstable inter-trochanteric fractures of femur, I came across a paper published in a state medical journal by Maru et al [1]. I have produced the pages of that article by Maru et al (as figures 2,4 and 6). Figures 1 to 6 show the highlighted text marked specifically in arrows being exactly taken from an earlier original article of Prof.Sancheti in the Indian Journal of Orthopedics[2]. There are about 18 paragraphs taken from it [2]. The other highlighted and arrow marked text are (totally seven paragraphs) paragraphs taken from an earlier original article by Rodop et al in International Orthopedics.³ Since most of the paragraphs were taken from other authors (Prof Sancheti's article or Rodop et al article) without any citation, I decided to write this article.

Cursory reading of these figures will make the reader knowledgeable of how this article [1] has been constructed. It is a pain that in paragraphs taken from Prof. Sancheti [2] found in Maru et al [1] article (pages 68 and 70 of the article in Gujarat medical association), even the superscript references are the same (superscript 4 in the Para in page 68 and superscript 16 in the para in page 70) . The worst part is they do not even match the references given in the article by Maru et al [1].

Further in the reference sections, the authors could not arrange the references obviously as they are from different sources. For example after reference number 16, they have jumped to 35, 36, and came back to 17. Surprisingly their total number of the references in references section is 22 only. In my article accepted for publication in the JIMA [4], on "Self plagiarism –its use to the reader", there was a mention of the smaller sin of writing their own article all over again by two sets of authors[4]. Only the curriculum vitae of the author will be enhanced by this practice. The harm as already pointed in my earlier article is killing the time of the reader, produce duplicate data in meta-analysis and devour the space of other original articles in the journals[4]. In this era of online journals and with gadgets available to identify plagiarism one needs common sense more than adventurism. The present scenario is a lot worse; Maru et al has chosen to write the same manuscript by the original article by Prof .Sancheti, and 'logically' chose to write the same conclusion including its words.

In the medical field there is increased need to publish. This is mainly in teaching hospital to retain the tag of a teacher and examiner. Plagiarism is the practice of an author using portions of others previous writings on the same topic publications, without specifically citing it formally in quotes [5]. This practice cannot be defended at all. To quote once more Judge Posner who in a civil rights case involving the alleged stealing of three soda cans told 'The law does not excuse crimes, merely because the harm inflicted is small' [6].

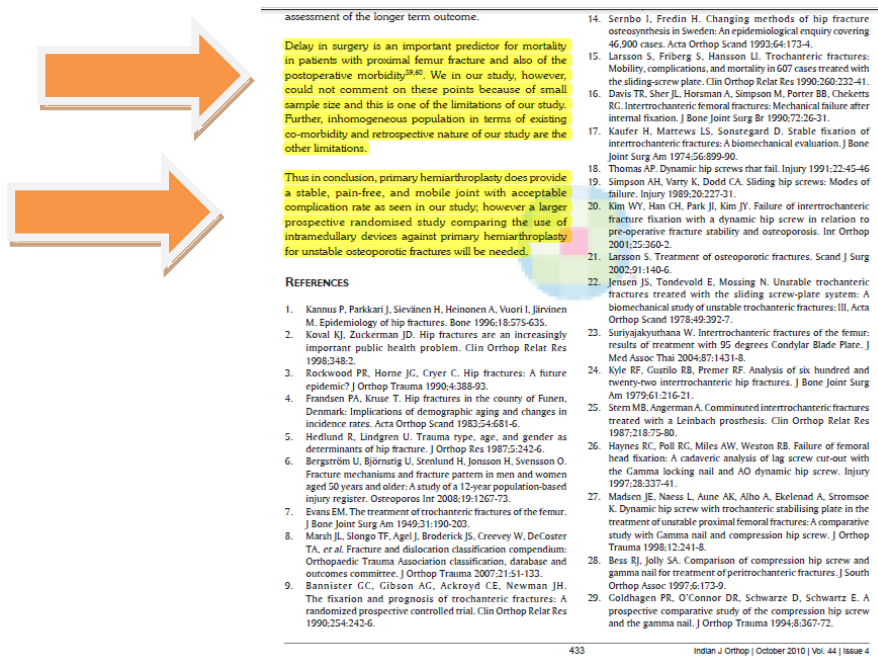


Figure 1: The highlighted paragraphs marked with arrows here as conclusion from Prof Sancheti's article² is used by Maru et al [1] as shown below in figure 2.

transfusion need in the replacement group. In our series the average blood loss was 350 ml with only six patients requiring postoperative blood transfusion and there was no incidence of dislocation.

Rodop et al.³ in a study of primary bipolar hemiprostheses for unstable intertrochanteric fractures in 37 elderly patients obtained 17 excellent (45%) and 14 good (37%) results after 12 months according to the Harris hip-scoring system. A total of 18 out of 23 patients in our study had a good to excellent result (71%). If the patients with a fair result were also included, the percentage goes up to 91%. Thus the results of this modality of treatment are definitely promising.

Green¹⁰ reported on 17 patients who had a primary head-neck bipolar prosthetic replacement for unstable intertrochanteric femoral fractures. Average patient age was 82.2 years, average time to ambulation was 5.5 days, and average follow-up time was 13.2 months. Two patients had non-union of the greater trochanter. Overall results were uniformly good with no infections or dislocations. The mortality rate was 20% at the end of the first year.

P. Florian Geiger, P.Monique Zimmermann-Stenze¹¹ found that Mortality was significantly influenced by Age, Gender, Amount of Co-morbidities but not by fracture classification.⁶

Mortality rate of bipolar arthroplasty and internal fixation of different study compare with current study are shown in following table.

(Journal of arthroplasty- April 2005, Chris Grimsud, Raul J. Monzon et al¹²)

morbidity rates, complications, early rehabilitation and returning to daily living activities. Long-term problems such as loosening, protrusion, stem failure, late infections and late dislocations have not been seen in these series. While these theoretically are potential problems they are seen usually years after the surgery. Although the average patient age in these series was between 74 and 82 years, shorter-term complications seem to be more important than long-term ones. Because life expectancy increases in all countries, long-term disadvantages of the hemiarthroplasty may outweigh its short-term advantages.

Delay in surgery is an important predictor for mortality in patients with proximal femur fracture and also of the postoperative morbidity. We in our study, however, could not comment on these points because of small sample size and this is one of the limitations of our study. Further, inhomogeneous population in terms of existing comorbidity and retrospective nature of our study are the other limitations.

CONCLUSION

Thus in conclusion, primary hemiarthroplasty does provide a stable, pain-free, and mobile joint with acceptable complication rate as seen in our study, however a larger prospective randomised study comparing the use of intramedullary devices against primary hemiarthroplasty for unstable osteoporotic fractures will be needed.

However, bipolar hemiarthroplasty for unstable intertrochanteric fractures was used as a salvage procedure after primary fixation failure, but primary bipolar hemiarthroplasty may be used as a better alternative treatment for unstable osteoporotic intertrochanteric fractures in elderly moribund patients for early ambulation and good functional results.

Figure 2: Maru et al [1] article final page especially that starting as “Delay....” and the entire first para of the conclusion starting as “Thus in conclusion ...” is exactly the same and is taken from Sancheti et al article.²(See figure 1)

Mean degree of motion	143	106	92	76	53	49	45	41
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Fig. 1 Components of the Leinbach bipolar hemiprostheses

Prophylactic first-generation cephalosporin and low-molecular-weight heparin (enoxaparin) was started 12 h before operation. Walking exercises were started on the second post-operative day. Patients were followed in 3-month intervals for the first year and 6-month intervals in the second year. During the follow-up patients were evaluated according to the Harris hip-scoring scale. We used the Gingsras criteria in determining radiographic loosening [4]. For acetabular erosion the distance from the head of the prosthesis to the superior dome of the acetabulum was measured on the immediate post-operative and follow-up roentgenograms [14, 19].

To determine movements of the bipolar head we measured the angle between a line parallel to the edge of the outer cup and a line parallel to the longitudinal axis of the femoral stem. We measured the angle between these two lines with the hip in neutral position and in 45° of abduction [1, 17] (Fig. 3a and b).

Results

Average follow-up was 22.3 (5–48) months. Mean operation time was 40 min; mean peri-operative blood loss was 185 ml±120 ml. Two patients died due to pulmonary embolism, one due to myocardial infarction and one due to malignancy. Moreover, three patients died before

Deep infection developed in one patient during the 13th month post-operatively, and the prosthesis was removed 1 year later. There was one case of acetabular erosion, four patients with avulsion of the greater trochanter and five with leg-length discrepancy due to high seating of the prosthesis. In two patients we found the cerclage wire used for the greater trochanter had broken. There was no dislocation or aseptic loosening.

In the first post-operative week 62% of the patients were able to walk with a walker and 98% were ambulatory when discharged from hospital. Our functional results are listed in Table 1. Success rates were unchanged during the follow-up period. We observed that the inner motion of the bipolar head decreased over time (Table 2).

Discussion

Displaced, unstable, severely comminuted intertrochanteric fractures are not easy to treat. Using Ender nails or older non-sliding implants, complication rates up to 50% have been reported [3, 7]. According to Sarmiento [15], by valgus osteotomy or by combination of osteotomy with bone cement [13] the mechanical complication rate can be reduced to 15%. Currently, general consensus is that internal fixation using a dynamic hip screw (DHS) device is the treatment of choice [8, 10]. Such an implant will tolerate greater weight-bearing forces than static devices [9]. Nevertheless, in elderly people with osteoporosis and complex intertrochanteric fractures, this technique does not allow for unrestricted weight bearing [20], and failure rates between 5% and 12% have been reported [10, 11]. For these reasons some authors favour the use of endoprosthesis, which will allow early weight bearing with a lesser risk of mechanical problems.

Figure 3: The picture of the original article of Rodop et al [3], from which paragraphs marked with arrows are taken to Maru et al article¹ produced in figure 4 next.

elderly patients in unstable intertrochanteric fracture to reduce mortality and morbidity in term of day of full weight bearing and complications related to prolonged bedrest.

MATERIAL AND METHODS

Between August 2009 and September 2011, 28 patients who were older than sixty five years, associated with preexisting systemic disease, who are high risk for anaesthesia (ASA Grade III & IV), osteoporosis as assessed by Singh's index, (All patients had confirmed osteoporosis on the preoperative bone mineral density scan confirming with the WHO criteria¹³). The fractures were classified according to AO/OTA and Evans classification. Only AO/OTA type 31-A2.2 and 31-A2.3 and Evans type III or IV fractures were included in this study and who had been independently mobile before sustaining an unstable intertrochanteric fracture were treated by the same surgical team at P.D.U. Medical college and hospital Rajkot.

Patients who were unable to walk before the fracture, who were younger than sixty five years old, not associated with any medical disease or who had stable fracture with intact lesser trochanter been not included in the study.

Operative technique: We used a posterolateral modified Gibson's approach in lateral position. The fracture anatomy was assessed and a cut was taken high up in the neck (almost subcapital level) to facilitate removal of the femoral head. With the removal of the head, the fracture now had three main fragments namely the greater trochanter, the lesser trochanter, and the shaft with the retained portion of the neck of femur. Thus, the reconstruction was made between greater trochanter, the lesser trochanter, and the shaft were wired together using steel wires in 23 cases while only ethibond sutures were

superficial layers, as routine over a suction drain after achieving hemostasis.

Prophylactic first-generation cephalosporin and low-molecular-weight heparin (enoxaparin) was started 12 h before operation. Walking exercises were started on the second post-operative day. Patients were followed in 3-month intervals for the first year and 6-month intervals in the second year. During the follow-up patients were evaluated according to the Harris hip-scoring scale. (Patient was evaluated using the Harris hip score (HHS) and were graded as <70 poor, 70-79 Fair, 80-89 Good and 90-100 Excellent). We used the Gingsras criteria in determining radiographic loosening¹⁴. For acetabular erosion the distance from the head of the prosthesis to the superior dome of the acetabulum was measured on the immediate post-operative and follow-up roentgenograms.

To determine movements of the bipolar head we measured the angle between a line parallel to the edge of the outer cup and a line parallel to the longitudinal axis of the femoral stem. We measured the angle between these two lines with the hip in neutral position and in 45° of abduction.

RESULTS

There were 13 women and 15 men with an average age of 75.8 (64-91) years. The Singh index was grade 3 in 5 patients, grade 2 in 12, and grade 1 in 11. Average interval between occurrence of fracture and hospitalization was 1.4 days and average interval between hospitalization and operation was 5.7 days. Numerous medical problems were noted upon admission, including hypertension, diabetes mellitus, heart disease, neurological disease, haematological disease, lung disease and others.

GMJ 69 GUJARAT MEDICAL JOURNAL / DECEMBER - 2013 Vol. 68 No. 2

Figure 4: Picture from Maru et al [1] page 2 showing text in paras starting “ Prophylactic first generation” and the para marked with arrows starting as “To determine movements..” are exactly the same from Rodop et al³ as seen from figure 3

(hypertension, n=5 and diabetes, n=4). Twenty of our patients were walking independently without support before the fracture. All patients were operated within 15 days (mean delay of 5.61±3.73 days, range 2 days to 14 days) with delay due to patients presenting late and time taken for patients to be fit for anaesthesia. The average surgery time was 71 min (range, 55–85 min) with an average intraoperative blood loss of 350 ml (range, 175–500 ml). Six patients needed single unit blood transfusion each postoperatively, rest of the patients did not require any blood transfusion. The patients started full weight bearing at an average 4.2 days after surgery (range, 3–8 days). One patient refused to walk after surgery and had a poor result (HHS 58). The average stay in the hospital was 10.96 days (range, 5–21 days). One of the patients developed bed sore postoperatively, and required a week more of hospital stay, till the healing of the sore. This patient was operated on 5th day post injury and did not have a pre operative bed sore. Out of the 37, two patients expired due to unrelated causes (both due to myocardial infarction). The first among these patients was an 85 year old female with hypertension, diabetes and ischemic heart disease and was operated on 8 day post trauma. She died 3 months after surgery due to myocardial infarction. The second patient was 78 year old male with ischemic heart disease and right nephrectomy and chronic renal failure, was operated on day 4 post injury and died 5 months post surgery due to myocardial infarction. The remaining 35 patients having a minimum one year follow up were evaluated and data was further analyzed for only these 35 patients. The minimum follow up was average of 24.5 months (range, 18–39 months). One patient developed pneumonia which settled down with intravenous antibiotics. One patient had a periprosthetic fracture 6 months after surgery which was treated with a locking compression plate. The fracture healed and the patient went on to have an excellent result. At the end of 3 months, 7 patients were graded as excellent, 16 patients as good, 9 patients as fair, 2 patients as poor, and 1 patient as failed. At latest follow-up (mean 24.5 months, range 18 months to 39 months), the mean HHS was 84.8±9.72 (range, 58–97). A total of 10 patients were

of a stick. One patient had Bookler grade 1 heterotopic ossification⁴⁰ at 6-month follow up; however, this did not restrict the range of motion. Among the patients with poor results, one patient had a superficial wound infection which settled down with a course of intravenous antibiotics for 2 weeks. However, the patient continued to have diffuse pain along the incision site and walked with a limp. The second patient of poor results also had pain and limp, but we could not find any obvious reason for the pain. The patient with the failed result was a case of Alzheimer's disease. The patient did not cooperate with the physiotherapy program and refused to walk postoperatively. Eventually, the patient developed a severe adduction contracture and was wheelchair bound [Figure 4]. There were no dislocation, loosening, or late infections.

DISCUSSION

Hip fractures are associated with notable morbidity and mortality in elderly patients. Internal fixation has drastically reduced the mortality associated with intertrochanteric fractures;⁴¹ however, early mobilization is still avoided in cases with comminution, osteoporosis, or poor screw fixation.^{42,43} Primary hemiarthroplasty offers a modality of treatment that provides adequate fixation and early mobilization in these patients thus preventing postoperative complications such as pressure sores, pneumonia, atelectasis, and pseudo arthrosis.^{44,45} The Indian perspective regarding the use of primary arthroplasty as a modality of treatment for severe comminuted unstable intertrochanteric fractures is been commented on by few authors;^{46,47} however, ours is the first case series reporting the Indian experience with this technique.

Hemiarthroplasty has been used for unstable intertrochanteric fractures since 1971,⁴⁸ however less frequently as compared to femoral neck fractures.⁴⁹ Its initial use was as a salvage procedure for failed pinning or other complications.⁴⁸ Tronzo claimed to be the first to use long, straight-stemmed prosthesis for the primary treatment of intertrochanteric

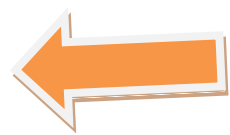
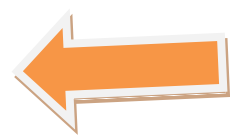


Figure 5: Sancheti's original article [2] in the Indian journal of orthopedics 2010 volume 44 issue 4 where paragraphs highlighted and marked with arrows are the same and repeated in the next figure shown.

The average surgery time was 71 min (range, 55–88 min) with an average intraoperative blood loss of 350 ml (range, 175–500 ml). Out of the 32, two patients expired due to unrelated causes (both due to myocardial infarction). The remaining 30 patients having a minimum one year follow up were evaluated and data was further analyzed for only these 28 patients. The minimum follow up was average of 24.5 months (range, 18–39 months).

The patients started full weight bearing at an average 4.2 days after surgery (range, 3–8 days). One patient refused to walk after surgery and had a poor result (HHS 58). The average stay in the hospital was 10.96 days (range, 5–21 days). One of the patients developed bed sore postoperatively, and required a week more of hospital stay, till the healing of the sore. This patient was operated on 5th day post injury and did not have a pre operative bed sore.

A total of 11 patients were graded as excellent, 10 patients as good, 4 as fair, 3 as poor results. At latest follow-up (mean 24.5 months, range 18 months to 39 months), the mean HHS was 84.8±9.72 (range, 58–97).

At last follow-up, 16 patients were walking without any aid, 10 patients had a limp and used a stick for walking, 1 patient used a walker, and 1 was wheelchair bound. 5 patients had shortening of the operated limb with an average shortening of 1.1 cm (range, 5–15 mm) which was well compensated by giving a shoe raise. A total of 12 patients had an abductor lurch at 3-month follow-up; however, only 3 patients had abductor muscle weakness with a positive Trendelenberg test at final follow-up. Most of these patients however could walk well with the use of a stick.

Among the patients with poor results, one patient had a superficial wound infection which settled down with a course of intravenous antibiotics for 2 weeks. However, the patient continued to have diffuse pain along the incision site and walked with a limp. The second patient of poor results also had pain and limp, but we could not find any obvious reason for the pain. The patient with the failed

prosthesis. In 2 patients we found the circlage wire used for the greater trochanter had broken. There was no dislocation or aseptic loosening. One patient developed pneumonia which settled down with intravenous antibiotics. One patient had a periprosthetic fracture 6 months after surgery which was treated with a locking compression plate. The fracture healed and the patient went on to have an excellent result.

DISCUSSION

Displaced, unstable, severely comminuted intertrochanteric fractures are associated with notable morbidity and mortality in elderly patients. Internal fixation has drastically reduced the mortality associated with intertrochanteric fractures⁴¹; however, early mobilization is still avoided in cases with comminution, osteoporosis, or poor screw fixation. Primary hemiarthroplasty offers a modality of treatment that provides adequate fixation and early mobilization in these patients thus preventing postoperative complications such as pressure sores, pneumonia, atelectasis, and pseudo arthrosis. The Indian perspective regarding the use of primary arthroplasty as a modality of treatment for severe comminuted unstable intertrochanteric fractures is been commented on by few authors;^{46,47} however, our case series reporting the Indian experience (Mid Term Results) with this technique.

Hemiarthroplasty has been used for unstable intertrochanteric fractures since 1971, however less frequently as compared to femoral neck fractures. It is initial use was as a salvage procedure for failed pinning or other complications. Tronzo claimed to be the first to use long, straight-stemmed prosthesis for the primary treatment of intertrochanteric fractures.⁴⁸ Rosenfeld, Schwartz, and Alter reported good results with the use of the Leinbach prosthesis. Since then there are multiple studies showing good results using this technique. Stern and Goldstein reported on 29 patients with intertrochanteric fractures treated with the Leinbach prosthesis with excellent results in 88%. They reported a deep infection rate of 6.8%, but no dislocations. Stern and



Figure 6: 3rd page of Maru et al article [1] the highlighted texts marked with arrows can be read from Sancheti's article in the Indian journal of orthopedics 2010 volume 44 issue 4 [2]. (figure 5) For example "Internal fixation has drastically reduced..." and the paragraph starting from "Hemiarthroplasty has been" in the discussion part can be exactly seen and read from the figure produced above (figure 5) from Sancheti's original article [2].



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