OPEN PEER REVIEW

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As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

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- More motivations for all involved roles in the review process
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- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

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Peer Review Report for "Patellofemoral Morphology and Imaging Features of Patellar Tumors and Tumor-Like Lesions"

Author(s): Tian-Hao Wu, Shu-Man Han, Tao Sun, Lei Cao, Yun-Heng Shi, Bao-Hai Yu, Wen-Juan Wu, Bu-Lang Gao

Review Timeline:

Submit Date: 8 Jun 2019
Revised Date: 19 Jul 2020
Accepted Date: 26 Jul 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (0) 17 Jun 2019

Dear AE,
Although the researchers tried to do a high-quality descriptive study, unfortunately, this work is not appropriate for publishing for the following reasons:
1. Many similar studies have been published in this area.
2. The method of the study is described very briefly and incompletely.
It is suggested that instead of a descriptive study, an analytical study with a case-control design should be done to clarify the etiology of the disease.
Thanks.

REFEREE: Reviewer | **Revision** (0) 28 Jul 2019

Dear AE,
Thanks to the authors for sharing the valuable case series of rare tumors of the patella.
Some minor revisions are suggested:
- I think the manuscript could be rewritten in a brief format. Some parts have been repeated several times and could be omitted.
- The format of the manuscript must be corrected according to the journal guidelines.

- In the last paragraph of the discussion, the phrase:
“Radiological differentiation diagnosis may be made from other bone tumors. “
is not appropriate and must be corrected.
- Also in the last paragraph of the discussion, it is stated:
“Aneurysmal bone cysts are beehive-like lytic destruction with coarse septations inside the lesion and sclerotic rims. “
- On the other hand, in the results section, “beehive-like lytic lesion” was described for fibrous dysplasia. Could you just clarify the difference based on the current and also previous studies?
Regards.

REFEREE: Reviewer | **Revision** (0) 31 Jul 2019

Dear AE,
Regarding the rarity of patellar tumors, the article is valuable but some revision in method and writing is necessary.
Regards

REFEREE: Associate Editor | **Revision** (0) 31 Jul 2019

Dear EIC,
The current study is a case series of the patellar bone lesions, describing their radiologic features and correlate with the pathology and the clinical findings.
Although the researchers tried to do a high-quality descriptive study, The method of the study is described very briefly and incompletely. So minor revision needs to publish this article.
Regards

REFEREE: EIC | **Revision** (0) 3 Aug 2019

Dear Author,
The reviewers' comments are mentioned. Please correct the details as mentioned above carefully according to the reviewers' request.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewers' comments and response

Reviewers' Comments:

Reviewer 1:
Hi Dear Authors

Although the researchers tried to do a high-quality descriptive study, unfortunately, this work is not appropriate for publishing for the following reasons:
1. Many similar studies have been published in this area.

Response: Thank you very much for your comments. We checked the website and found that the majority articles published regarding patellar tumors was case reports, and original full length articles of research are rare. Moreover, we have added some new data by measuring the patellar bone shape and found some new results. This is much better compared with other research articles.
2. The method of the study is described very briefly and incompletely.
It is suggested that instead of a descriptive study, an analytical study with case-control design should be done to clarify the etiology of the disease.

Response: Thank you very much for your professional comments. We have substantially extended the method section and have added some analytical data with control design as follows (which has been added in the method section):

This study was approved by the ethics committee of our hospital with all patients given their signed informed consent to participate in the clinical radiography. All clinical and imaging data regarding patellar tumors and tumor-like lesions confirmed by histopathology between 1976 and 2008 were retrospectively retrieved and analyzed. A total of 29 patients with patellar tumors and tumor-like lesions were recognized including 20 male and 9 female patients with an age range of 10-81 years (mean 32). The imaging presentations of the patellar tumors and tumor-like lesions were studied. Moreover, fourteen (10 males and 4 females, with an age range of 10-81 years and mean of 32±19) patients with patellar tumors and another fifteen patients (13 males and 2 females with an age range of 15-59 years and mean of 26±10) without patellar diseases who had complete computed tomography (CT) data were enrolled for measuring relevant morphologic data, with the 14 patients being set up as the tumor group while the other 15 patients with no patellar disease as the control group. The morphological measurement on CT imaging included the

femoral trochlear angle (FTA), lateral pulley inclination (LPI), trochlear depth (TD), patellar tilt angle (PTA), lateral shift (LS), external patellar tilt angle (EPTA), tibialtuberosity-trochlear groove distance (TTTG), insall-Salvati (IS) index, lateral patellofemoral angle (LPA) and congruence angle (CA) (Fig.1) [8-12].

Reviewer 2:
Dear authors:

Thank you for sharing your valuable case series of rare tumors of the patella.

Some minor revisions are suggested:

-I think the manuscript could be rewritten in a brief format. Some parts have been repeated several times and could be omitted.

-The format of the manuscript must be corrected according to the journal guidelines.

-In the last paragraph of discussion, the phrase:
“Radiological differentiation diagnosis may be made from other bone tumors. “
is not appropriate and must be corrected.

-Also in the last paragraph of the discussion, it is stated:
“Aneurysmal bone cysts are beehive-like lytic destruction with coarse septations inside the lesion and sclerotic rims. “
On the other hand, in the results section, “beehive-like lytic lesion” was described for fibrous dysplasia. Could you just clarify the difference based on the current and also previous studies?

Response: Thank you very much for your professional comments. We have made it clear here in the discussion section as follows: Aneurysmal bone cysts are beehive-like lytic destruction with small fine septations inside the lesion but no sclerotic rims, and these signs are quite different from those of fibrous dysplasia which is of a beehive-like lytic lesion with coarse septations and sclerotic rims.

Moreover, in the RESULTS section, we have also made it clear between these two disease lesions as follows: In the one case with fibrous dysplasia, the lytic lesion had unspecific imaging with multiple septa and inhomogeneous density inside the lesion, giving a beehive appearance with an expanded cortex, coarse sepatations inside the lesions and sclerotic rims(Fig.6). The aneurysmal bone cyst lesion was expansively lytic at the lower extremity of the patella with homogenous density and small thin septations in the lesion but no sclerotic rims (Fig.7).

Reviewer 3:
Dear associate editor
regarding rarity of patellar tumors the article is valuable but some revision in method and writing is necessary.
Regards
M.Malek

Response: Thank you very much for your comments to improve our paper. We have done this.

Associate Editor's Comments:

Associate Editor 1:
Dear editor in chief
The current study is a case series of the patellar bone lesions, describing their radiologic features and correlate with the pathology and the clinical findings. Although the researchers tried to do a high-quality descriptive study, The method of the study is described very briefly and incompletely.so minor revision needs to publish this article.
Regards,
M.Malek

Response: Thank you very much for your comments to improve our paper. We have done as suggested.

EIC Decision:

Major Revision.

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 23 Mar 2020

Dear AE,
Although the authors tried to apply my comments and the edition was done appropriately but it needs some revisions as follows:
1. Abstract: It is better type of study (case-control) to be mentioned in the first part of method.
2. Abstract: Usually, the descriptive finding of the study present at the start of result and then analytical findings present.
3. Abstract: It is better p-value to be written in the parenthesis along with angle values in abstract result.
4. Method: It is better separately to be described case and control group individual and inclusion and exclusion criteria of them.
5. Table 1:
5.1. group must be edited to groups
5.2. unit of each variable number (Kg, ...) and statistic measure (mean, median, count, ...) must be specified.
5.3. the method section mentioned that Mann-Whitney to be used but in the table critical value of the Z test presented.
6. Detailed comments are available in the annexed manuscript file.
Thanks.

REFEREE: Reviewer | **Revision** (1) 25 Mar 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

REFEREE: Associate Editor | **Revision** (1) 25 Mar 2020

Dear EIC,
The authors should perform some minor revisions :
1. Abstract: It is better for to type of study (case-control) to be mentioned in the first part of the method.
2. Abstract: Usually, the descriptive finding of the study present at the start of the result,

and then analytical findings present.

3. Abstract: It is a better p-value to be written in the parenthesis along with angle values in the abstract result.

4. Method: It is better separately to be described case and control group individual and inclusion and exclusion criteria of them.

5. Table 1:

5.1. group must be edited into groups

5.2. unit of each variable number (Kg, ...) and statistic measure (mean, median, count, ...) must be specified.

5.3. the method section mentioned that Mann-Whitney to be used but in the table critical value of the Z test presented.

6. Detailed comments are available in the annexed manuscript file.

Regards

Kavous Firouznia: EIC | **Revision (1)** 26 Mar 2020

Dear Authors,

Your article nèeds minor revision.

Regards

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewers' Comments:

Reviewer 1:

Hi

Although the authors tried to apply my comments and the edition was done appropriately but it needs some revisions as follows:

1. Abstract: It is better type of study (case-control) to be mentioned in the first part of method.

Response: Thank you very much for your comments. We have added "case-control" before "study" in the Objective section. We have also mentioned the tumor group and the control group in the abstract.

2. Abstract: Usually, descriptive finding of study present in the start of result and then analytical findings present.

Response: Thank you very much. We have put the analytical findings at the later part and the descriptive findings at the start.

3. Abstract: It is better p-value to be written in the parenthesis along with angle values in abstract result.

Response: Thank you very much. We have put the P value and the angle values in the parenthesis in the abstract.

4. Method: It is better separately to be described about case and control group individual and inclusion and exclusion criteria of them.

Response: Thank you very much for your professional comments. We have added the inclusion and exclusion criteria in the text as follows:

The inclusion criteria were patients with patellar tumors and tumor-like lesions, complete computed tomography (CT) scan data, and good imaging data for analysis. Exclusion criteria were patients without CT scan data or bad imaging data for analysis. A total of 29 patients with patellar tumors and tumor-like lesions were recognized including 20 male and 9 female patients with an age range of 10-81 years (mean 32). The imaging presentations of the patellar tumors and tumor-like lesions were studied. The inclusion criteria for the control group were patients without patellar diseases but with complete patellar CT scan data and good imaging data for analysis.

5. Table 1:

5.1. group must be edited to groups

Response: Thank you very much. We have revised group to "groups".

5.2. unit of each variable number (Kg, ...) and statistic measure (mean, median, count, ...) must be specified.

Response: Thank you very much. We have added the variable number and statistic measurements in the table and the title of the table to indicate the specific data.

5.3. in the method section mentioned that Mann-Whitney to be used but in the table critical value of Z test presented.

Response: Thank you very much for your comments. We have revised this section as suggested. We have done the statistics with the MANN-Whitney test and used Mann-Whitney U value in the table. The results remained the same.

6. Detailed comments are available in the annexed manuscript file.

Reviewer 2:
Dear author,
Thanks for your précised revision.
Regards.
Response: Thank you very much for your positive comments.

Associate Editor's Comments:

Associate Editor 1:
Dear editor in chief
please performe some minor revisions :
1. Abstract: It is better type of study (case-control) to be mentioned in the first part of method.
Response: Thank you very much for your comments. We have added "case-control" before "study" in the Objective section. We have also mentioned the tumor group and the control group in the abstract.
2. Abstract: Usually, descriptive finding of study present in the start of result and then analytical findings present.
Response: Thank you very much. We have put the analytical findings at the later part and the descriptive findings at the start.
3. Abstract: It is better p-value to be written in the parenthesis along with angle values in abstract result.

Response: Thank you very much. We have put the P value and the angle values in the parenthesis in the abstract.
4. Method: It is better separately to be described about case and control group individual and inclusion and exclusion criteria of them.

Response: Thank you very much for your professional comments. We have added the inclusion and exclusion criteria in the text as follows:

The inclusion criteria were patients with patellar tumors and tumor-like lesions, complete computed tomography (CT) scan data, and good imaging data for analysis. Exclusion criteria were patients without CT scan data or bad imaging data for analysis. A total of 29

patients with patellar tumors and tumor-like lesions were recognized including 20 male and 9 female patients with an age range of 10-81 years (mean 32). The imaging presentations of the patellar tumors and tumor-like lesions were studied. The inclusion criteria for the control group were patients without patellar diseases but with complete patellar CT scan data and good imaging data for analysis.

5. Table 1:

5.1. group must be edited to groups

Response: Thank you very much. We have revised group to "groups".

5.2. unit of each variable number (Kg, ...) and statistic measure (mean, median, count, ...) must be specified.

Response: Thank you very much. We have added the variable number and statistic measurements in the table and the title of the table to indicate the specific data.

5.3. in the method section mentioned that Mann-Whitney to be used but in the table critical value of Z test presented.

Response: Thank you very much for your comments. We have revised this section as suggested. We have done the statistics with the MANN-Whitney test and used Mann-Whitney U value in the table. The results remained the same.

6. Detailed comments are available in the annexed manuscript file.

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (2) 11 Apr 2020

Dear AE,
At present, the authors appropriately revised the manuscript and it is acceptable for publication according to methodologically.
Thanks.

REFEREE: Associate Editor | **Revision** (2) 26 Apr 2020

Dear EIC,
The revised version is acceptable.
Regards

REFEREE: Associate Editor | **Revision** (2) 25 Jun 2020

Dear EIC,
The authors should respond to all comments one by one. Then, highlight any changes you make in the manuscript.
1- In the affiliations, please add university, city, and country names to the affiliations.
2- You have mentioned Figures 2-5 and then 7-8. All figures should be mentioned in order. Please mention Figure 6 in the manuscript.
3- In the Patients and Methods, you have reported 29 patients with patellar tumors (including 9 malignant and 20 benign). While you have mentioned a new classification of 14 tumoral patellar diseases as the case group and 15 normal as controls. This new grouping is unclear. You have not described who these 14 patients are and we do not know how you selected these 14 cases among 29 patellar tumoral lesions. This selection seems wrong. Instead, I think you should consider another classification for comparison and analysis. In fact, a better statistical analysis plan would be to first compare between 15 controls and 29 patellar tumoral lesions and then, for a more detailed analysis, compare between 15 controls and 20 benign and 9 malignant patients (three groups in comparison). All descriptive data on 29 patients should be preserved in the manuscript. In addition, please make sure that you apply these changes throughout the abstract and the whole manuscript accordingly.
4- In the discussion, “The prevalence age of osteosarcoma was different in the patella compared to the long bone in teenagers, with the prevalence age in patella greater at a mean age of 36 years.”

What do you mean by, “prevalence age”? Do you mean “mean age”? Please revise.

5- In the discussion, “Among 279 cases of benign patellar tumors reported by Mercuri et al. 1, the prevalence of benign tumors was in the following order: giant cell bone tumor in 1216 cases, chondroblastomas in 61, chondromas in 19, primary aneurysmal bone cysts in 15, bone cysts in 14, osteoid osteomas in 10, osteoblastomas and osteochondromas in nine, hemangiomas in eight, ganglions in four, lipomas in two, nonossifying fibroma in one, and osteoma in one.”

This seems wrong. There are 279 cases of which the number of giant cell bone tumor cases were 1216. Please revise and correct.

6- In Table 1, You have mentioned 0.00 in the U row and FTA column. This number seems wrong. Please revise and correct.

Thank you.

REFEREE: EIC | **Revision** (2) 27 Jun 2020

Dear Authors,

Your article needs Minor Revision.

Regards

OPEN PEER REVIEW

Revision (3)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewers' Comments:

Reviewer 1:
Hi
At present, dear authors appropriately revised the manuscript and it is acceptable for publication according to methodologically.
Response: Thank you very much for your positive comments.

Dear editor in chief
The revised version is acceptable.
Regards
M.Malek
Response: Thank you very much for your positive comments.

Associate Editor 2:
Dear author,
Please respond to all comments one by one. Then, highlight any changes you make in the manuscript. Please do not make any changes in the manuscript other than responding to the comments, because they will not be considered.
1-In the affiliations, please add university, city, and country names to the affiliations.
Response: These data have been added.

2-You have mentioned Figures 2-5 and then 7-8. All figures should be mentioned in order. Please mention Figure 6 in the manuscript.
Response: Thank you very much for your comments. We have mentioned the figures in the text. Fig.6 has been added in the last paragraph in the RESULTS section as follows:

For adenocarcinoma metastatic cases, the lesion was lytic at the upper extremities of the patella with unclear margins (Fig.4), and a soft tissue mass appeared in one patient. The osteosarcoma lesion was presented in imaging as mixed destruction of bone with unclear margins, eroded cortex and a soft tissue mass in two cases. In the remaining case with well-differentiated osteosarcoma, the lesion was lytic in imaging with unclear margins like a benign lesion (Fig.5). In the one case with fibrous dysplasia, the lytic lesion had unspecific imaging with multiple septa and inhomogeneous density inside the lesion, giving a beehive appearance with an expanded cortex, coarse sepatations inside the lesions and sclerotic rims (Fig.6). The aneurysmal bone cyst lesion was expansively lytic at the lower extremity of the patella with homogenous density and small thin septations in the lesion but no

sclerotic rims (Fig.7). The parosteal lipoma was presented as a fatty tumor in front of the patella with the base connected to the patella by ossified branches (Fig.7). The hemangioma lesion was small with sclerotic rims, high CT values raging 60Hu-90 Hu and interior calcification (Fig.8). Chondrosarcoma had calcification inside the lesion in some cases. No specific imaging features were found in the other tumors.

3-In the Patients and Methods, you have reported 29 patients with patellar tumors (including 9 malignant and 20 benign). While you have mentioned a new classification of 14 tumoral patellar diseases as the case group and 15 normal as controls. This new grouping is unclear. You have not described who these 14 patients are and we do not know how you selected these 14 cases among 29 patellar tumoral lesions. This selection seems wrong.

Instead, I think you should consider another classification for comparison and analysis. In fact, a better statistical analysis plan would be to first compare between 15 controls and 29 patellar tumoral lesions and then, for a more detailed analysis, compare between 15 controls and 20 benign and 9 malignant patients (three groups in comparison). All descriptive data on 29 patients should be preserved in the manuscript. In addition, please make sure that you apply these changes throughout the abstract and the whole manuscript accordingly.

Response: Thank you very much for your careful and detailed evaluation. In this study, 14 patients were actually chosen from the 29 patients with patellar tumors and tumor-like lesions as the tumor group for measurement of the patellar morphology. The control group was of 15 patients without patellar diseases. The control group with 15 patients with no patellar diseases were compared with 14 patients chosen from the 29 patients with patellar tumors and tumor-like lesions. We did not compare the control group with all 29 patients in the measurement data of the patellar morphology because some of the 29 patients who had the patellar morphology changed by the tumor were selected as the tumor group for comparison. That is why we had to choose 14 patients without patellar chape changes from the 29 patients. Thus, it is still the comparison between the 15 control patients without patellar diseases and the 14 patients with tumors chosen from the 29 patients. We just revised the description as stated below.

The composition of the 14 patients in the tumor group was as follows: In this tumor group with 14 patients, there were chondroblastoma in six cases, giant cell tumor in

two, hemangioma in one, aneurysmal bone cyst in one, parosteal lipoma in one, osteosarcoma in one, metastatic adenocarcinoma in one, and bone cyst in the remaining one.

The following information has been revised accordingly:

Moreover, fifteen patients without patellar diseases but with complete patellar CT scan data and good imaging data were enrolled as the control group for comparison of the patellar morphologic data, including 13 males and two females with an age range of 15-59 years (mean 26±10). For comparison of the measurement data of the patellar morphology with the 15 control patients without patellar diseases, fourteen patients (10 males and 4 females, with an age range of 10-81 years and mean of 32±19) with complete patellar CT scan data but without significant patellar shape changes were further selected from the above 29 patients with patellar tumors and tumor-like lesions as the tumor group with the patellar morphology measured. In this tumor group with 14 patients, there were chondroblastoma in six cases, giant cell tumor in two, hemangioma in one, aneurysmal bone cyst in one, parosteal lipoma in one, osteosarcoma in one, metastatic adenocarcinoma in one, and bone cyst in the remaining one.

*4-In the discussion, "The prevalence age of osteosarcoma was different in the patella compared to the long bone in teenagers, with the prevalence age in patella greater at a mean age of 36 years." What do you mean by, "prevalence age"? Do you mean "mean age"? Please revise.*4 .

Response: Thank you very much for your careful evaluation. We do mean "mean age" and have revised it. Thank you once again for your comments.

5-In the discussion, "Among 279 cases of benign patellar tumors reported by Mercuri et al. 1, the prevalence of benign tumors was in the following order: giant cell bone tumor in 1216 cases, chondroblastomas in 61, chondromas in 19, primary aneurysmal bone cysts in 15, bone cysts in 14, osteoid osteomas in 10, osteoblastomas and osteochondromas in nine, hemangiomas in eight, ganglions in four, lipomas in two, nonossifying fibroma in one, and osteoma in one." This seems wrong. There are 279 cases of which the number of giant cell bone tumor cases were 1216. Please revise and correct.

Response: Thank you very much for your detailed and careful evaluation. We have

made a mistake. 1216 should be 126. We have revised it. Thank you once again.

6-In Table 1, You have mentioned 0.00 in the U row and FTA column. This number seems wrong. Please revise and correct.

Response: Thank you very much. In this table the Mann-Whitney U test was used and the statistical value was indeed 0.00. If you do not think we should use this method, then we used the Rank Sum Test with the Z value for comparison. Thank you very much.

Groups	FTA(º)	LPI(º)	TD(mm)	PTA(º)	LS	TT-TG (mm)	IS index	LPA(º)	CA(º)	EPTA(º)
Case	159.19±9.42	14.69±8.91	3.104±1.79	9.51±5.9	0.14±0.08	14.51±6.05	1.09±0.35	8.55±4.81	13.06+6.59	9.92±6.24
Control	135.00±5.50	20.73±3.51	6.67±1.26	7.93±3.88	0.09±0.04	18.96±9.24	1.12±0.19	11.06±5.14	11.53±5.9	10.06±4.84
Z	-4.59	-2.60	-3.99	-0.67	-1.82	-1.81	-0.29	-1.81	-0.41	-0.14
P	< 0.001	0.01	< 0.001	0.50	0.07	0.27	0.77	0.07	0.06	0.89

OPEN PEER REVIEW

Revision (3)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Associate Editor | **Revision** (3) 15 Jul 2020

Dear EIC,
The authors should respond to the following comment. Then, highlight any changes you make in the manuscript.
- They have mentioned Figures 2-5 and then 7-8. All figures should be mentioned in order. Please mention Figure 6 in the manuscript between figs 2-5 and Figs 7-8.
- They have not responded to this comment. You have added Fig 6, but it is in the imaging presentation of the disease which is after you have mentioned figs2-5 and figs 7-8 in the morphological measurement as, “No significant (P>0.05) difference existed in the age and sex composition between the tumor and control group. In the tumor group, the trochlear groove was abnormally shallow and flat (Fig.2-5, 7-8). The FTA was significantly (P=0.00) greater in the tumor than in the control group (159.19º±9.42º vs. 135.00º±5.50º), whereas the LPI (14.69º±8.91º vs. 20.73º±3.51º, P=0.01) and TD (3.10±1.79 vs. 6.67±1.26 mm, P=0.00) were significantly smaller in the tumor group than in the control group. No significant (P>0.05) existed in the other measurement indexes (Table 1). “
Figures should be mentioned in order. 1,2,3,4,5,6,7,and 8. You have mentioned 1 then 2-5, and 7-8. Fig. 6 should be mentioned between 2-5 and 7-8. Please go over the manuscript and make sure they are mentioned in correct order.
Thank you.

REFEREE: EIC | **Revision** (3) 18 Jul 2020

Dear Authors,
Your article needs Minor Revision.
Regards

OPEN PEER REVIEW

Revision (4)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Comments and responses

Associate Editor's Comments:

Associate Editor 1:
Dear author,
Please respond to the following comment. Then, highlight any changes you make in the manuscript. Please do not make any changes in the manuscript other than responding to the comments, because they will not be considered.
You have mentioned Figures 2-5 and then 7-8. All figures should be mentioned in order. Please mention Figure 6 in the manuscript between figs 2-5 and Figs 7-8.
You have not responded to this comment. You have added Fig 6, but it is in the imaging presentation of the disease which is after you have mentioned figs2-5 and figs 7-8 in the morphological measurement as, "No significant (P>0.05) difference existed in the age and sex composition between the tumor and control group. In the tumor group, the trochlear groove was abnormally shallow and flat (Fig.2-5, 7-8). The FTA was significantly (P=0.00) greater in the tumor than in the control group (159.19º±9.42º vs. 135.00º±5.50º), whereas the LPI (14.69º±8.91º vs. 20.73º±3.51º, P=0.01) and TD (3.10±1.79 vs. 6.67±1.26 mm, P=0.00) were significantly smaller in the tumor group than in the control group. No significant (P>0.05) existed in the other measurement indexes (Table 1). "
Figures should be mentioned in order. 1,2,3,4,5,6,7,and 8. You have mentioned 1 then 2-5, and 7-8. Fig. 6 should be mentioned between 2-5 and 7-8. Please go over the manuscript and make sure they are mentioned in correct order.
Thank you.

Response:
Thank you very much for your comments. We have mentioned Fig.6 in the RESULTS section as follows:
In the remaining case with well-differentiated osteosarcoma, the lesion was lytic in imaging with unclear margins like a benign lesion (Fig.5). In the one case with fibrous dysplasia, the lytic lesion had unspecific imaging with multiple septa and inhomogeneous density inside the lesion, giving a beehive appearance with an expanded cortex, coarse sepatations inside the lesions and sclerotic rims (Fig.6). The aneurysmal bone cyst lesion was expansively lytic at the lower extremity of the patella with homogenous density and small thin septations in the lesion but no sclerotic rims (Fig.7).

Thank you once again.

OPEN PEER REVIEW

Revision (4)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Associate Editor | **Revision** (4) 25 Jul 2020

Dear EIC
Based on the authors' answers to the reviewers' comments, the reviewer(s) have recommended publication.
Kind regards.

REFEREE: EIC | **Revision** (4) 26 Jul 2020

Dear Authors,
Your article is acceptable for the publication in IJR.
Regards