Peer Review File
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Round 1

Comment 1: My main concern is about the methods describing the literature review process. The authors indicated that they searched PubMed and CNKI for "lncRNA" and "ovarian cancer" for articles published in the last 10 years. When I entered these search terms into PubMed, the search returned over 1,000 articles. More information is needed to describe how the authors decided to include or eliminate articles from their review, as this review does not include 1,000 articles.

Reply 1: we have modified our text as advised (see Page 2, line 30-33 and Page 4, line 77-82).

Changes in the text:

A) Methods: In this paper, literature reports related to LncRNA in ovarian cancer in the past 10 years were searched on "PUBMED" and they were classified and summarized. Keywords can be targeted as "epithelial ovarian cancer", "long non-coding RNA", "mechanism".

B) PUBMED was searched for literature reports on LncRNA in ovarian cancer in the past 10 years, and the key words were "epithelial ovarian cancer", "long non-coding RNA", "mechanism". According to classification, the accuracy continues to be as follows: "proliferation", "invasion", "migration", "prognosis", and "drug resistance". The time range is from 2012 to 2022.Then categorize and summarize the articles found.

Comment 2: The way the papers are categorized is good (e.g., related to occurrence, development, and prognosis of ovarian cancer, related to targeted therapy). However, the authors state in Key Content and Findings (line 27) that the lncRNAs are divided into three categories (related to proliferation, invasion, and migration; occurrence, development, and prognosis; or targeted therapy) – the first category (proliferation, invasion, and migration) does not seem to be included in the article. Should the first category described (starting on line 91) be renamed as lncRNAs related to proliferation, invasion, and migration? Or are there other lncRNAs related to proliferation, invasion, and migration that were inadvertently left out of the article? Or does this section describe a fourth category of lncRNAs that should be described?

Reply 2:The first category (proliferation, invasion, and migration) has been included in this article, but it was ignored due to formatting issues, and I have reformatted this article. The first category starts from line 104 to line 158 (see Page 5~8, line 104 to 158).

Changes in the text:

1.Pancreas are related to proliferation, invasion and migration of ovarian cancer

Aberrant expression of LncRNAs is associated with the proliferation, invasion and migration of ovarian cancer. Epithelial mesenchymal transformation (EMT) plays a crucial role in the invasion and metastasis of ovarian cancer (9). Cell invasion, migration, and metastasis are the hallmarks of cancer,which lead to secondary tumor formation and high risks of death. Therefore, it is imperious for us to profoundly understand theinvolvement and mechanism between LncRNAs and invasion, migration and metastasis of ovarian cancer cells. It mayprovide us with early diagnostic insights of ovarian cancer.

1. HOX Transcript antisense interRNA (HOTAIR)……
2. Metastasis associated lung adenocarcinoma transcript1 (MALAT1)……

3. H19……
4. Colon cancer-associated transcript1 (CCAT1) and colon cancer-associated transcript2 (CCAT2)……

Comment 3: Line 232 starts with an incomplete sentence (PVT1 belongs to oncogene). The sentence following is also unclear – does the paper describe identifying misregulated PVT1 lncRNAs? These sentences should be corrected.
Reply 3: we have modified our text as advised (see Page 11-12, line 238-249).
Changes in the text：
To our knowledge, PVT1 belongs to oncogenes. Liu et al. (31)pretreated ovarian cancer 3AO cells with carboplatin-docetaxel and then found LncRNA PVT1 wasabnormally expressed after treatment. Further experiments demonstrated that PVT1 regulated by carboplatin-docetaxel gained anti-tumorpotency, and upregulation of PVT1 would increase expression of tumor suppressor genes p53 and TIMP1, thus inhibiting disease progression. El-khazragy et al. (32)noted that overexpression of PVT1 was associated with poor overall survival and cisplatin resistance. PVT1 can induce cisplatin resistance by inhibiting apoptosis. Chen et al. (33)found that the expression of PVT1 in EOC tissues resistant to cisplatin was higher than that in normal ovarian tissues. When JAK2/STAT3/PD-L1 signaling pathway was blocked, PVT1 expression in EOC resistant to cisplatin was inhibited. Therefore, PVT1 may be a potential therapeutic target for ovarian cancer associated with cisplatin resistance.

Round 2
There are still some minor issues with this article, mainly related to clarity of the writing.

Comment 1: Regarding the methods, it is still not clear how the authors reduced >1,000 articles to the number reviewed in the paper. The changes to the Methods section do not make this clear. The revised section includes incomplete and unclear sentences (lines 79-82), such as, "According to classification, the accuracy continues to be as follows…" It is not clear what this means. The sentence "Then categorize and summarize the articles found," is not a complete sentence and does not clarify how the articles were classified.
Reply 1: Thank you for your sincere comments. We have revised the inadequacies in the article. The paragraph is amended as follows:
(lines 77-83) PubMed was searched for literature reports on LncRNA in ovarian cancer, and the key words were "epithelial ovarian cancer", "long non-coding RNA", "mechanism". The time range was from 2012 to 2022. Then we categorized and summarized the literatures. We preliminarily divided LncRNAs into three categories: LncRNAs mainly related to the proliferation, migration and invasion of ovarian cancer, LncRNAs mainly related to the occurrence, development and prognosis of ovarian cancer, and LncRNAs mainly related to targeted therapy of ovarian cancer.

Comment 2: Line 104 reads: "Pancreas are related to proliferation, invasion and migration of ovarian cancer." This appears to be a typo that needs to be fixed. Beginning on line 110 is a sentence that reads, "Therefore, it is imperious for us to profoundly understand the involvement and mechanism…" Perhaps the authors meant "it is important for us to understand?"

Reply 2: Thank you for your suggestion, which is of great significance to the revision of my article.The paragraph is modified as follows:
(line 107) LncRNAs related to proliferation, invasion and migration.
(lines 112-114) Therefore, it is important for us to profoundly understand the involvement and mechanism between LncRNAs and invasion, migration and metastasis of ovarian cancer cells.

Comment 3: Line 238 was revised to read: “To our knowledge, PVT1 belongs to oncogenes.” Does that mean that PVT1 functions as an oncogene? This should be clarified.
Reply 3: Thank you for your question, which is of great significance to the revision of my article.The paragraph is modified as follows:
(lines 239-240) Existing studies have shown that PVT1 can induce cisplatin resistance and may be a potential therapeutic target for ovarian cancer.