**Клеточная терапия болезни Паркинсона: достижения и перспективы**

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Резюме

Обзор литературы посвящен основным направлениям, проблемам и перспективам использования клеточной терапии при болезни Паркинсона. В течение последних десятилетий проведены многочисленные экспериментальные и клинические исследования, основанные на использовании в терапии паркинсонизма дофамин-секретирующих клеток (клетки мозгового слоя надпочечников и сонного гломуса), клеток фетального мезенцефалона, генетически модифицированных клеток, а также стволовых клеток различного происхождения, в том числе эмбриональных, мезенхимальных, нейрональных и индуцированных плюрипотентных стволовых клеток. Несмотря на значительный прогресс в данной области, для практического внедрения представленных подходов необходимо решить ряд вопросов, связанных с этическими и техническими факторами, достаточно высокой вариабельностью исходов клеточной терапии, наличием в ряде случаев побочных эффектов, риском онкотрансформации, необходимостью стандартизации протоколов направленной нейрогенной дифференцировки.

This review focuses on the main trends, opportunities and challenges of cell therapy application in Parkinson’s disease. During the past decades, countless experimental and clinical studies were held based on introducing various means of treatment parkinsonism, such as dopamine-producing cells, fetal brain tissue cells, genetically modified cells, as well as stem cells of different origin, including embryonic, neural, mesenchymal and induced pluripotent stem cells. While considerable progress has been made in this area, several practical aspects still require further consideration, including those involving ethical and technical factors, significant variability of the outcomes, side effects and oncological risks, as well as the need for induced neural differentiation protocol unification and compatibility.

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