

THE OPTIMIZATION AND EVALUATION OF CELL LINE-DERIVED XENOGRRAFT MOUSE MODELS FOR COLORECTAL CANCER WITH LIVER METASTASIS

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Poster

Colorectal

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Comparison of three injection methods for establishing colorectal cancer liver metastasis mouse models using HCT116, SW480, and SW620 cell lines reveals cell line-specific optimal approaches.

KEY POINTS

- For HCT116 cells, intrasplenic injection was rated excellent for liver metastasis models, producing granular lesions with tumor pleomorphic variation, invasion, erosion and necrosis.
- For SW620 cells, cecal injection was rated excellent, while for SW480 cells both cecal and intrasplenic injections were rated suboptimal for liver metastasis.
- Intraportal injection was rated mediocre for all three cell lines due to technical difficulty in portal vein puncture, risk of post-operative hemostasis and mouse deaths, and poorly visible metastatic foci.
- Cecal and intrasplenic injections required approximately 3,000,000 cells each and showed similar operation difficulty and metastasis frequency, while intraportal injection required approximately 700,000 cells.
- This study provides useful information for establishing CRC cell line-derived xenograft models for liver metastasis and insights for identifying characteristics of metastatic foci induced by different cell lines.

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