Journal of Diabetes & Clinical Practice

Mini Review Open Access

Keywords: Bone Tumours; Fluorescent in Situ Hybridization; Mo-

test with extreme caution. However, it is important to integrate the acquired data with the clinicopathological aspects. e demand for more precise diagnoses is anticipated to rise as soon as novel, targeted treatments become accessible. is was the case, for instance, with the marine alkaloid ectaneiscin trebectedin, which showed promise against myxoid lip sarcoma. It may be very bene cial to identify the two distinct fusion products of the CHOP/DDIT3 gene with FUS and, less frequently, with EWSR1 in order to diagnose myxoid lip sarcoma and choose the best treatment plan. e variety of clinical manifestations of numerous entities has expanded as a result of the extensive use of molecular pathology. In reality, the use of genetics in conjunction with morphological criteria has made it possible to locate rare diseases that develop in non-canonical anatomical regions. In actuality, Ewing Sarcoma in the skin the complexity of companion diagnostics and rigorous deadlines for fast diagnoses of cancer, chronic in ammatory illnesses, and degenerative diseases1 present many di culties to pathology departments in the era of precision medicine, resulting in an increased workload. One potential answer to the aforementioned problems is the widespread use of digital pathology for everyday tasks across numerous departments in various nations2. According to health policy documents in Denmark, for instance, this digital approach might promote quicker reaction times, improved clinician collaboration, and in the future, the ability to apply arti cial intelligence to support diagnosis. Information systems, image management systems, and whole slide imaging technologies make up the three key components of digital pathology. e reliability, safety, and accuracy of these devices must be validated before using this technology for in vitro diagnostics. According to the new European rule for IVD medical devices, they must undergo a performance review before being authorised for use in clinical settings. ree primary steps have been documented for this evaluation: scienti c validity, analytical performance, and clinical e cacy 8. e latter is based on parameters for diagnostic test accuracy that were previously developed by the Cochrane collaboration9.

Conclusion

Our research question was: What is the diagnostic performance, including the level of overdiagnosis, of WSI compared to conventional LM? e most frequently used measures of DTA are sensitivity, speci city, predictive values, likelihood ratios, Receiver Operating Characteristics curves, and area under the ROC curve. erefore, this study's goal is new kinase inhibitors with action against KIT and PDGFRA have been researched based on the success of imatinib. Among these is Sunitinib a "multi-targeted" inhibitor that is orally accessible and also blocks VEGFR2 and may prevent tumour angiogenesis. Patients with GIST who are intolerant to or resistant to imatinib may be treated with sunitinib, according to FDA approval. e best responses to sunitinib were seen in patients with KIT exon 9 mutations or wild-type tumours, according to the results of a phase II trial. ere are other additional kinase inhibitors in clinical research, but it is safe to assume that most of them will eventually be ine ective when administered alone. It is necessary to use multi-agent treatment modalities, possibly in the form of a cocktail of kinase inhibitors. As previously said, molecular pathology/genetics is not a substitute. e critical rst step of a histopathological evaluation is sample preparation. e most popular method of histopathology involves creating permanent formalin- xed, para n-embedded slides. Formalin- xed tissues is rst dehydrated via a serial solvent exchange in this practically ubiquitous process, and then is e protocol for this systematic review was registered in PROSPERO and was based on PRISMA-P guidelines17. To illustrate the selection procedure for this systematic review, a PRISMA ow diagram was made. Separately from one another, two authors CVR and OK scanned the databases, extracted the data, evaluated the e cacy of the research, analysed the data, and presented a synthesis of the ndings. JBB was consulted to arbitrate in cases where there were disputes during these processes. Embedding thin objects in para n, a material with mechanically advantageous qualities three key outcomes DTA indicators9, diagnostic concordance, and degree of overdiagnosis were used to compare WSI with LM. We checked for the latter condition's two primary causes, over detection and over de nition. e rst is described as the discovery of pathological anomalies that do not contribute to mortality because they either progress very slowly or never su ciently to cause harm. e third subtype of overde nition involves either reducing the risk factor's threshold without any supporting evidence of its bene cial bene ts or broadening the disease de nition to include, for example, milder symptoms16. Observer variability was the additional outcome that was incorporated in this. Only human pathology, comprising all tissue specimen preparations such biopsies, resected specimens, frozen sections, and cytology samples, as well as all stains, were the focus of our study.

Acknowledgement

None

Conflict of Interest

None

References

1. Wellinghausen N, Wirths B, Essig A, Wassill L (2004) Evaluation of the hyplex bloodscreen multiplex PCR-enzyme-linked immunosorbent assay system for direct identi cation of gram-positive cocci and gram-negative bacilli from positive blood cultures. J Clin Microbiol 42: 3147-3152.
2. Kim SR, Ki CS, Lee NY (2009) Rapid detection and identi cation of 12 respiratory viruses using a dual priming oligonucleotide system-based multiplex PCR assay. J Virol Methods 156: 111-116.
3. Marrazzo JM, Johnson RE, Green TA (2005) Impact of patient characteristics on performance of nucleic acid ampli cation tests and DNA probe for detection of Chlamydia trachomatis in women with genital infections. J Clin Microbiol 43: 577-584.
4. Loens K, Beck T, Ursi D (2008) Development of real-time multiplex nucleic acid sequence-based ampli cation for detection of Mycoplasma pneumoniae, Chlamydophila pneumoniae, and Legionella spp. in respiratory specimens. J Clin Microbiol 46: 185-191.
5. Ziermann R, Sánchez Guerrero SA (2008) PROCLEIX® West Nile virus assay based on transcription-mediated ampli cation. Expert Rev Mol Diagn 8: 239-245.
6. Boyadzhyan B, Yashina T, Yatabe JH, Patnaik M, Hill CS, et al. (2004) Comparison of the APTIMA CT and GC assays with the APTIMA Combo 2 assay, the Abbott LCx assay, and direct uorescent-antibody and culture assays for detection of Chlamydia trachomatis and Neisseria gonorrhoeae. J Clin Microbiol 42: 3089-3093.
7. Can F, Yilmaz Z, Demirbilek M (2005) Diagnosis of Helicobacter pylori infection and determination of clarithromycin resistance by uorescence in situ hybridization from formalin xed, para n-embedded gastric biopsy specimens. Can J Microbiol 51: 569-573.
8. Poppert S, Essig A, Stoehr B (2005) Rapid diagnosis of bacterial meningitis by real-time PCR and uorescence in situ hybridization. J Clin Microbiol 43: 3390-3397.
9. Hartmann H, Stender H, Schäfer A, Autenrieth IB, Kempf VA, et al. (2005) Rapid identi cation of Staphylococcus aureus in blood cultures by a combination of

11. Degertekin B, Hussain M, Tan J, Oberhelman K, Lon AS, et al. (2009) Sensitivity and accuracy of an updated line probe assay (HBV DR v.3) in detecting mutations associated with hepatitis B antiviral resistance. J Hepatol 50: 42-48.

12. Baek TJ, Park PY, Han KN, Kwon HT, Seong GH (2008)