

Research paper 8

Second opinion in diagnosis of cancers: experience of a cancer referral centre

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Introduction and objectives: The Centre for Diagnosis and Research in Cancer (CeDARC) provides second opinions to Sri Lankan pathologists on diagnostically difficult cases. This audit analyses the type of cases received at CeDARC, and whether it was possible to provide a clinically relevant comprehensive diagnosis with the addition of immunohistochemical tests.

Methodology: All cases referred to CeDARC from January 2022 to June 2023 were reviewed. The initial diagnoses of the referring pathologist (RP) and CeDARC were categorized as being concordant or having major or minor discordance. Cases with major discordance (MD) were further analyzed.

Results: There were 259 referred cases; skin (35;14%), haematolymphoid (33;13%), soft tissue (32;12%), gynaecology (26;10%), head and neck (HN) (26;10%), neuropathology (23;9%), bone (23;9%). The RP had provided a diagnosis in 204 cases (78.8%). The majority (144/204;70.6%) were concordant with the final diagnosis of CeDARC and included in the differential diagnosis of the RP. The overall discordance rate (DR) was 23.1% (major-57/204;27.9%, minor-3/204;1.5%). Soft tissue (10/57;17.5%), bone (7/57;12.3%), haematolymphoid (10/57;17.5%), skin (10/57;17.5%), HN (6/57;10.5%) and gynaecology (5/57;8.8%) had the highest DR. The cases with MD were categorized as a change in diagnosis from malignant to benign (10/204;4.9%), benign to malignant (3/204;1.5%), different entity but still benign (3/204;1.5%), different entity but still malignant (20/204;9.8%) and change in soft tissue/bone tumour category (21/204;10.3%). The final diagnoses were based on further immunohistochemical testing in 59.6% (34/57) of cases that showed MD, and each of these required an average of four immunohistochemical markers.

Discussion and conclusion: The soft tissue, haematolymphoid, bone, skin, HN and gynaecology cases showed the highest rates of MD. Most of these cases required extra immunohistochemical markers, highlighting the need to establish more IHC facilities around the country. Moreover, these areas with the highest rates of MD require expert panels, workshops in the local setting, and specialized training in local and foreign centres.

Keywords: discordance rate, cancer, referral, immunohistochemistry

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