Hydatidiform Mole Quality Improvement Project (QIP)

Experience Of A Newly Established NHS Pathology Hub.

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BACKGROUND

- Hydatidiform mole (HM) account for 1 in 600 conceptions in the UK [1].
- Early diagnosis and treatment has reduced mortality from malignant progression to less than 1% of all trophoblastic gestational disease[1].
- In UK, there are 3 national specialist Centres for Trophoblastic Disease (CTD) where all cases of gestational trophoblastic disease (including HM) are expected to be registered. These centres provide support for the clinicians in follow-up and treatment[2].
- Patient outcomes have significantly improved including preserved fertility, lower mortality from malignant progression and better emotional support [1,2].
- Effective, timely communication between local hospitals and the designated CTD is crucial to ensure best patient outcomes.
- Black Country Pathology Services (BCPS) is a new pathology hub merger of 4 NHS Trusts in the West Midlands. This made it necessary to ensure that robust referral pathway to CTD is in place to meet increasing demand.

AIMS

- To review the efficiency of pre-existing (pre-merger) referral pathways for HM and communication with designated CTD at Charing Cross Hospital.
- Assess the concordance between local (BCPS) and expert diagnosis (CTD) of HM.
- Discuss robust referral framework to tackle areas requiring improvement and to adapt to increased workload.

METHODS

STUDY PERIOD

- 2-year period (Sept 2019 – Sept 2021).

INCLUSION CRITERIA

- All products of conception (POC) cases coded as: *M91000* (hydatidiform mole), *M91030* (partial hydatidiform mole).
- POC marked as having a supplementary report (suggesting case was sent to CTD)

DATA COLLECTION AND ANALYSIS

- Histopathology database (Winpath) search was undertaken and cases fulfilling the inclusion criteria were analysed.
- Histology reports of all HM were reviewed. CTD reports (where available) were also reviewed.

RESULTS

Current Performance

	Frequency / %
No. Of POC Over 2 Year Period	1567
Proportion Of HM	46 (3% Of All POC)
Proportion Sent To CTD At Charing Cross	46/46 (100%)
Clinician-led Referral To CTD	11/46 (24%)
Sampling	
Initial Sampling Adequate Additional Tissue Processed	32/46 (70%) 14/46 (30%)

Reporting Terminology

Variation in reporting style between different pathologists was identified, conveying different levels of diagnostic certainty[3].

High Degree of Certainty	Low Degree Of Certainty
Molar Pregnancy Likely • "…In keeping with…" • "…highly suggestive of…" • "…compatible with…" **Molar Pregnancy Unlikely** • "…no clear diagnostic features of…" • "…no convincing features…"	**Possible Molar Pregnancy** • "…suspicious for…" • "…raises the concern…" • "…possibility of…"

Diagnostic Concordance With CTD

- Concordance between original BCPS diagnosis and CTD expert opinion was excellent (93.5%).
- Only 3 cases (6.5%) were discordant.
- In the discordant cases, the original report was suggestive of possible HM conception. The expert opinion favoured non-molar gestation.
- All cases which were reported with high degree of diagnostic certainty were concordant with CTD.

Reporting Times

- 11 CTD reports were analysed for reporting time variables.

9 Days	Average Time Taken For CTD Report From Receipt Of Specimen
21 Days	Average Time From Initial Report From BCPS To Finalised CTD Report
55 Days	Time From Initial Report From BCPS To Finalised Supplementary Report

Use Of P57 Immunohistochemistry

- P57 immunohistochemistry was not performed either at local level (BCPS) or CTD to support diagnosis of HM.

DISCUSSION

- There is dramatic increase in workload as expected from merger of pathology hub.
- Standardization of reporting terminology would improve communication with clinicians.
- High concordance (>90%) with CTD expert opinion is reassuring.
- Time delays were identified, the most significant is delay in receiving the expert CTD report.
- Possible reasons include:
  - Covid-19 related disruption
  - Staff shortages at CTD to relay authorised reports
  - Reports are not chased by sender due to historic expectation that reports take at least 12 weeks to become available.

STANDARDIZED FRAMEWORK FOR REFERRAL OF HM TO CTD:

Update existing protocol to include these improvements

- ✓ Standardize reporting terminology to one statement for each degree of diagnostic certainty, when feasible[3,4].
  Suggestions: *'diagnostic of hydatidiform mole', 'NOT diagnostic of hydatidiform mole'* and *'features seen raise the possibility of hydatidiform mole'*.
- ✓ All cases of suspected HM to be sent to CTD by the histology department. The original report should state whether this is for '*Confirmation of Diagnosis*' or '*Registration*'. The latter would allow clinicians to start prompt patient management based on initial report[3,4].
- ✓ BCPS admin staff to initiate follow-up on expert opinion after 14 days have elapsed from receipt of case at CTD.
- ✓ All CTD opinions to be included as a supplementary report to original report on histopathology database (Winpath).
- ✓ Create a centralised HM database where all CTD opinions are held to facilitate future audits and for record-keeping purposes.

CONCLUSION

- Every new venture such as a pathology network merger requires new innovative approaches to adapt to expansion and increased workload.
- There is high concordance between local pathologists and CTD, particularly for likely hydatidiform mole.
- Our initial cycle of this QIP has identified areas of improvement and helped put the building blocks for standardized local reporting of hydatidiform mole.
- Re-audit in 6-9 months to assess effectiveness of introduced measures and robustness of recommended framework.

References:

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