Results: For this review articles about the analysis of DNA extract-
ated from stained FFPE sections were considered. The studies dem-
onstrated that: DNA extracted from sections stained with Azure B, 
toluidine blue and methyl green (MG) was successfully amplified by 
Polymerase Chain Reaction (PCR) whereas Mayers’s hematoxylin 
strain inhibits the reaction. Another study demonstrated that DNA 
amplification by PCR had better results with eosin Y and MG stains 
comparatively to Mayers’s hematoxylin and May-Grumwald. Ban-
ashak et al. 2001, showed that DNA analysis by PCR and capillary 
electrophoresis was successful with Hematoxylin Eosin (HE), Peri-
optic Acid Schiff (PAS), Azan and Perls stains. Phosphatase ac-
methylxoylin (PTHA) and Gomori stains had negative results. Two 
different studies concluded that DNA is refractory to HE stain as 
capillary electrophoresis demonstrated similar degradation to that 
of unstained samples and it was successfully amplified by PCR.

Conclusions: Histochemical analysis allows demonstration of cel-
lar components whose alterations are typical from pathological 
conditions. These techniques that may alter biomolecules. Nevertheless, from the analyzed studies it is possible to 
conclude that DNA integrity is maintained in techniques such 
like Azure B, toluidine B, MG, eosin Y, HE, PAS, Azan and Perls. On 
the other hand, Mayer’s hematoxylin, May-Grumwald, PTHA and Gomori 
resulted in inhibition of DNA amplification. Since this analysis was 
not performed in common routine techniques such as Masson’s Tri-
chrome and PAS Alcian Blue, it is important to deepen the knowl-
edge, performing new studies for future appliance.

P66. SEVERE INTELLECTUAL DISABILITY, 
ABSENT SPEECH, EPILEPSY AND CRANIOFACIAL 
DYSMORPHISMS IN A FEMALE PATIENT WITH A 3(P25.3) 
PROXIMAL INTERSTITIAL DE NOVO DELETION
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Introduction: Deletions at the distal portion of the short arm of 
chromosome 3 cause a recognizable syndrome with characteristic 
features, most frequently arising de novo and with breakpoints at 
band 3p25.3. Interstitial deletions involving only sub-band 3p25.3 
are less frequently reported, and within this region two deletion 
areas can be defined: distal and proximal deletions.
Case report: We report a 24 year old female with global develop-
mental delay (DD), severe intellectual disability (ID), absent speech, 
epilepsy and craniofacial dysmorphisms. Due to her severe ID, ab-
sent speech and dysmorphic features, she was initially considered 
an Angelman syndrome patient. However, array-CGH analysis re-
vealed a novo 1Mb interstitial deletion at band 3p25.3 between 
positions 10,364,749 and 11,421,309 (hg19).
Discussion: The reported deletion overlaps with deletions previ-
ously reported in the most proximal area of region 3p25.3, al-
though there are only 5 patients reported in the literature with this 
imbalance. These patients present a common phenotype consisting 
of DD, ID, absent or poor speech and epilepsy or EEG anomalies. The 
commonly deleted region includes the 3 last coding exons of 
SLC6A11 gene, SLC6A4 gene and its antisense gene, H1R1 gene and 
part of AFG7 gene. Both SLC6A4 genes code for Gamma-amino butyr-
ic acid (GABA) transporters, responsible from removing GABA from 
the synapse. SLC6A4 gene is reported in OMIM Morbid Map as het-
erozygous mutations are responsible for myotonic atomic epilepsy

P65. INFLUENCE OF HISTOCHEMICAL STAINS ON DNA 
OBTAINED FROM FFPE SAMPLES
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Introduction: Formalin fixed, paraffin embedded (FFPE) samples 
are used for diagnostic and prognostic purposes. Histopathological 
analysis frequency includes not only histomorphological evaluation 
but also histochemical and molecular studies. In some cases FFPE 
samples are scarce and it is necessary to use the same histological 
section for histochemical analysis and DNA extraction, in molecular 
pathology labs this is a common practice, allowing the analysis of 
DNA specifically from altered cells. However, histochemical tech-
niques use reagents that may induce chemical modifications on 
DNA. To perform a literature review about the influence of histo-
chemical stains on DNA integrity.
Materials and methods: PubMed and Research Gate were used to 
search original articles published until December 2017.