2.2 Par une compression tumorale extrinsèque

La pose d'une prothèse endobronchique est indiquée si le calibre trachéal ou bronchique est réduit de 50% ou plus (156,194). Elle permet de diminuer la dyspnée (195) et d'améliorer les valeurs spirométriques (196). Mise en place quand le Performance Status est < 4, elle pourrait améliorer significativement la survie (197). Dans cette indication, seules les prothèses en silicone ou les prothèses métalliques couvertes sont recommandées. Si une radiothérapie externe est envisagée, il faut privilégier, dans la mesure du possible, la pose d'une prothèse en silicone.

La mise en place d'une prothèse endobronchique impose la **fluidification « à vie » des sécrétions** par des aérosols de sérum physiologique (x 3 / jour) ou des mucolytiques (ex : acétylcystéine, 3 sachets per os /j). De ce risque d'encombrement découle **la seule contre-indication formelle des prothèses endobronchiques : la présence d'une trachéotomie**, en raison de l'assèchement majeur des sécrétions dans la prothèse par l'air sec directement inhalé via la trachée.

3. Situations particulières

3.1 Hémoptysie d'origine néoplasique

Un geste d'endoscopie interventionnelle est recommandé en cas d'hémoptysie provenant d'une lésion maligne proximale (172). Les techniques efficaces sont le tamponnement direct de la zone hémorragique avec le bronchoscope pour contrôler un saignement important, la résection mécanique du tissu tumoral, le laser Nd/YAG, la coagulation par l'argon-plasma, la thermocoagulation, la mise en place d'une endoprothèse (143,144).

3.2 Fistule trachéo- ou broncho-œsophagienne par un cancer bronchique

Cette situation survenant en règle générale en fin de vie (survie spontanée de 1 à 7 semaines selon les études), la prise en charge doit être palliative, ce qui exclut un geste chirurgical (172).

Le traitement recommandé est la mise en place d'une double prothèse : prothèse endobronchique métallique couverte et prothèse endo-œsophagienne (172).

Si les 2 prothèses ne peuvent être placées dans le même temps opératoire, il est habituellement conseillé de placer la prothèse endobronchique en premier. En effet, la prothèse œsophagienne, par ses propriétés expansives, risque de comprimer la trachée et d'entraîner une détresse respiratoire aiguë (172).

Cependant les auteurs de ce document préconisent une attitude plus pragmatique qui consiste à poser en premier la prothèse œsophagienne **après avoir vérifié le calibre des voies aériennes en bronchoscopie souple.** L'expérience montre qu'une prothèse œsophagienne bien placée suffit généralement à contrôler la fistule. Une prothèse endobronchique sera posée dans un second temps si le patient reste symptomatique à la reprise de l'alimentation, si le calibre de la trachée ou de la bronche en regard est réduit de plus de 50% ou bien, *a fortiori*, en cas d'aggravation de la fistule avec migration de la prothèse œsophagienne dans l'arbre bronchique.

Malgré cette prise en charge, la reprise d'une alimentation normale, sans dysphagie ni fausse-route, est difficile et une alimentation entérale par gastrostomie ou parentérale peut s'avérer nécessaire.

3.3 Tumeurs carcinoïdes typiques

La chirurgie avec curage ganglionnaire est le traitement standard des tumeurs carcinoïdes typiques et atypiques (cf. référentiel tumeurs bronchiques neuro-endocrines). La résection par endoscopie interventionnelle exclusive est une alternative en cas de contre-indication chirurgicale, d'exérèse parenchymateuse disproportionnée ou de refus du patient (198). Les dossiers doivent être discutés en RCP avec présence d'un chirurgien thoracique formé aux exérèses complexes. Une étude rétrospective récente suggère que la résection endoscopique pré-opératoire, permettrait d'augmenter les possibilités de chirurgie d'épargne pulmonaire (199).

L'endoscopie interventionnelle est une alternative à la chirurgie en cas de contre-indication, exérèses disproportionnées ou de refus de celle-ci **si tous les critères suivants sans exception** sont réunis (200):

- Nature **typique** confirmée à l'examen anatomo-pathologique de la totalité de la pièce de résection endoscopique
- Lésion **polypoïde strictement endoluminale** et **facilement accessible**
- **Absence d'adénopathie thoracique** au scanner
- **Résection endoscopique complète,** confirmée à distance du geste par des biopsies multiples et répétées du pied d'implantation.

Un doute concernant un seul de ces critères doit obligatoirement faire reconsidérer le geste chirurgical, d'emblée ou après le geste endoscopique si celui-ci a déjà été réalisé dans un but diagnostique ou curatif.
Une étude prospective sur 112 patients a évalué les possibilités de bronchoscopie interventionnelle exclusive dans le traitement des tumeurs carcinoïdes. La bronchoscopie interventionnelle était suivie d'un traitement chirurgical uniquement s'il existait une maladie extra-luminale, un résidu non accessible en bronchoscopie ou une récidive tardive. Dans cette étude, 42% des patients ont bénéficié d'une bronchoscopie interventionnelle exclusive avec un taux de récidive de 12% (201).

Le traitement endoscopique associe résection mécanique complète et traitement local du pied d'implantation, par exemple par cryothérapie (200).

Il faut noter que la résection endoscopique ne permet pas le contrôle d'un éventuel envahissement ganglionnaire.
Le taux de récidive après résection endoscopique exclusive varie entre 0 et 6% (200,202–204). Il est donc conseillé une surveillance radiologique et endoscopique (avec biopsies sur le pied d'implantation) semestrielle pendant 5 ans puis annuelle jusqu'à 10 ans minimum. En cas de récidive, même tardive, la résection chirurgicale est fortement recommandée.

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